

NEIGHBOURHOODS
IN
SCOTTISH NEW TOWNS

VOLUME I

VALERIE E. HUME

Jean-Paul Sartre

Thesis presented for the Degree of Doctor
of Philosophy of the University of
Edinburgh in the Faculty of Social Sciences,
September 1969



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Cohesive qualities of residential units are related partly to the size of the ABSTRACT and to the proximity of the population's earlier homes which provide a strong

The New Towns Act 1946, initiated an era of town construction according to a national policy. In Scotland five New Towns are being built. Of these, East Kilbride is reaching the final stages, while Irvine's first immigrants settled in August 1969. The Towns, under the control of Development Corporations, have been planned so that the limitations of inter-war housing estates are avoided. In particular, all emphasis has been laid on transport networks that facilitate communications, and on the establishment of self-contained communities. In the first New Towns construction of neighbourhood units was considered an appropriate method of overcoming anonymity in a town, and an aid to promoting the welfare of immigrants. Other kinds of residential units have been planned in the more recent towns. Problems of creating a self-contained, balanced neighbourhood are aggravated by an immature age structure and socio-economic imbalance.

The study takes into account the physical and social structure of the residential units in East Kilbride, Glenrothes and Livingston; and reveals that in none of them have neighbourhoods come into existence through the continued interaction of residents throughout the area planned as a unit.

The provision of facilities such as shops, schools, and clinics aids the self-containment of a unit, but not necessarily its cohesiveness which is related to the extent and frequency of the use, rather than the existence of facilities. Investigation of the patterns relating to shopping, employment, churches and schools attended, recreation, and visiting habits, has shown that the effectiveness of neighbourhood boundaries is only partly a result of their physical character. Movement across a boundary is influenced primarily by the attraction of features on the other side. Furthermore, if facilities within the residential unit are not sufficiently attractive, the high level of mobility in the New Towns permits residents to pursue activities beyond their own units.

Cohesive qualities of residential units are related partly to the size of the unit, and to the proximity of the population's earlier homes which provide a strong attraction away from the unit. A sense of cohesion could be inculcated through participation in organisations whose membership is drawn from the residential unit, or whose activities are related directly to the unit, but these have proved of little consequence as few organisations cater specifically for people within one unit, and society membership within a unit is characteristic of only a small proportion of the New Town populations.

Instead of residential units becoming cohesive entities most of them are comprised of a number of sub-regions related to the socio-economic structure, to the demographic characteristics, to the stage at which the area was built in the development of the unit, and to the influence exerted on a small area by a focal point either within or outwith the unit. Lack of a major focal point in a unit, a heterogeneous population and a good communications network for public and private transport permitting easy access to nearby centres, are not conducive to the establishment of a cohesive neighbourhood.

Mr. A. J. G. Hunter, M.A., Dip.T.P., research officer in Glenrothes, and Mr. P. Richardson, B.A., Dip.T.P., A.M.T.P.I., research officer in Livingston, have been particularly appreciated.

Hundreds of households in Glenrothes, Livingston, and East Kilbride, have willingly given their time, information, and opinions about many topics, without which the work would never have been possible. I am grateful to all of them.

My thanks are also due to Mrs. C.M. Young who has typed this work.

In addition, I acknowledge, with appreciation, a Studentship from the University of Edinburgh (1967-9) which made it possible for me to continue my study and present the results of the investigation.

ACKNOWLEDGEMENTS

The assistance given in the completion of this work I regret cannot be adequately acknowledged. I wish to express my appreciation and gratitude for the interest, help and encouragement of Professor J. Wreford Watson, M.A., Ph.D., F.R.S.E., and of Dr. Ronald Jones, M.A., Ph.D.

Among the members of the Department of Geography at the University of Edinburgh to whom I am indebted, I wish to pay tribute to Mr. Thomas C. Waugh, B.Sc. who has given much help and advice in the computerisation of maps; and to the post-graduate students in the Department between 1966 and 1969, who have given both inspiration and valued criticism. In particular I am thankful for the advice given by Miss L.P. Walker, M.A. and Mr. D. Maharaj, B.A.

Without the permission and help of the Development Corporations in Glenrothes, Livingston and East Kilbride, this work could not have had the benefit of their detailed information. I am also indebted to them for the street maps appearing with this volume. The thoughtfulness and help given by Miss E. Farquhar, M.A., Dip.T.P., research officer in Glenrothes, and Mr. F. Richardson, B.A., Dip.T.P., A.M.T.P.I., research officer in Livingston, have been particularly appreciated.

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INTRODUCTION

The aim of this study is to examine the influence of the plans of the Scottish New Towns on the lives of the population in the residential units, within the context of neighbourhoods. As geographers are concerned with land use and the complex relationships of physical and social objects in space, the change of land use brought about by the building of New Towns is of particular geographical interest. It involves consideration of physical aspects of housing, amenities, industry, commerce and recreational facilities, as well as social factors.

This study came about primarily because so much has been written about the physical planning of New Towns, and about the social aims, but relatively little research has followed up the New Town developments to determine the success of the aims in the way that was anticipated. Although anthropologists have claimed that a style of life of a particular society is not readily changed, sociologists have traditionally argued that changes in environment can turn human behaviour along different paths (Abrams, 1962).

If a change in the way of life of a population is likely to take place with a move to a New Town, the philosophy of the planner is of extreme importance. According to some sociologists, the wrong goals and norms of a plan can be a danger to the community's satisfactory development (Adams, 1950). As a result, many aspects of both a political and an ethical nature are raised, regarding the aims of the planners and the effects on the people. Melville Branch asks which shall prevail when the values of the planners and the values of the people differ (Branch, 1966). Another statement related to the power of planners was given by Maurice Ash at the Town and Country Planning Summer School in 1966. He suggested that the planning of human settlements is neither art nor science, but philosophy in its active application (Ash, 1966).

Assuming the aim of the planner is for what is socially desirable, according to his own philosophy, the plan then

becomes a matter of compromise between that, and what is economically possible. This is particularly significant in the case of the New Towns whose development depends to a large extent on loans and subsidies from the Treasury. This results in the more rigid manipulation of physical phenomena than projects relying on private investment.

New Towns in Great Britain

The New Towns have been part of a philosophical and political development which was primarily initiated by Ebenezer Howard near the beginning of this century.

To present-day British town planners, the term "New Town" refers specifically to towns that have been built as part of a national policy since the New Towns Act, 1946, and on the basis of its provisions. The following definition of a "New Town" was written by Dame Evelyn Sharp: "By the expression 'New Town' is meant ... a town deliberately planned and built and a self-contained town; a town which provides in addition to houses, employment, shopping, education, recreation, culture - everything which marks the independent, satisfying town" (Viet, 1960).

New towns, have of course, been built for centuries, but not generally as part of a national policy. Attempts to build towns during the nineteenth century in Great Britain, were made by wealthy landowners and industrialists. For example, Robert Owen, a mill owner, attempted to build something more than a one-class suburb when he created New Lanark. He believed that balanced communities could be provided and financed by a charge on production as well as the wages of the workers. Industrialists in England, such as Cadbury and Lever, established towns for their workers, towns which included dwellings, industry, and community facilities. They wanted more space for their factories and better living conditions for their employees, away from overcrowding in uncomfortable, insanitary housing found in the cities.

Reasons for the earlier developments not being widely copied included the difficulty of bringing an extensive area of land into common ownership, and the need for much

capital when such a broad scale of planning involved the provision of dwellings and other buildings. It is likely that without government involvement these difficulties would have continued to arise.

The Garden City Movement

Of all those whose work has made most impact on the New Towns Movement, probably Ebenezer Howard has had the greatest influence. In 1898 he published "To-morrow: A Peaceful Path to Real Reform", which in 1902, was re-issued as "Garden Cities of To-morrow". In it he wrote the following definition: "A Garden City is a town designed for healthy living and industry; of a size that makes possible a full measure of social life, but not larger; surrounded by a rural belt; the whole of the land being in public ownership or held in trust for the community" (Howard, 1946). He advocated the creation of self-contained industrial communities by private citizens according to a national plan - not by the state. With a population of 32,000 and by building houses of different sizes Howard believed he could have a balanced mixture of social and income groups. First Garden City Ltd., a limited liability company, was organized in 1903 to start the building of Letchworth. Welwyn Garden City was the only other town to be established directly along the lines laid down by Howard, that is, with zones for residential, commercial and industrial areas, a maximum density of twelve houses to the acre, ownership of the land retained by the companies, the granting of leases to limit the use of the land to a specific purpose and to control the plans, external appearance and materials of all buildings.

F.J. Osborn, a disciple of Howard, attributed to him, "a unique combination of proposals" including the planned dispersal of industries and people, to towns large enough "to provide services, occupations and levels of culture needed by a balanced cross-section of modern society" (Osborn, 1946). Osborn also described the Garden City movement as a decentralist New Town movement pre-dating the current form of town planning and influencing the fundamental aspect of urban planning philosophy.

In "La Ville Radieuse" Le Corbusier criticized the Garden Cities because they were opposed to urban concentration and therefore involved waste of time, energy, money, and land, leading to isolation of the individual, and ultimately to the destruction of social consciousness and the downfall of co-operation (Le Corbusier, 1935). He went further by saying that the Garden City ideas were opposed to any material advantages of civilization because he believed they opposed the application of scientific discoveries, restricted comfort, and through contributing to loss of time they limited the individual's freedom.

Here are two almost conflicting viewpoints of the way cities ought to be built. Both authors believed in liberty for the individual and the benefit of collective action, that planning should be based on the human scale, that urban planning should fix the relations between places devoted to residence, work and leisure, and that housing is a critical element in urban planning. Yet the size, shape, density and form of city contrast markedly in their proposals. The difference in the needs and desires of the French and the British cannot account for the differences in design of these towns. The philosophy of the authors is a major determinant.

In 1931 the Lord Privy Seal set up a departmental committee on Garden Cities and Satellites, under the chairmanship of Lord Marley. In the report published in 1934 they spoke of the social and economic dangers of haphazard, scattered and ribbon development, and at the same time, deplored the increasing densities of existing concentrations. As early as this Garden Cities were suggested as a method of helping to solve a national problem caused through earlier neglect of planning.

Housing Estates

Between the two world wars many new housing estates were built. Their one-class composition and lack of facilities were blamed for causing a lack of social life and limited community spirit. It seemed apparent that a large number of housing estates would not solve the problems

in the future. There was no doubt that these estates did help to reduce the housing shortage, but frequently they merely became dormitories involving the residents in long journeys to work, to shops and to other facilities associated with urban living. The ideals of the Garden City had not been pursued, so that urban sprawl with all its drawbacks continued, along with the additional disadvantages of one-class, working-class estates which were frequently without gardens or other planned open space and were architecturally monotonous.

1939-1945

The War had its effect both on the industrial situation and on the distribution of the population. As a result of the damage in main centres, the demand for houses grew, and the hardships of those who were made homeless and forced to live in overcrowded, unsatisfactory conditions gave a vigorous impetus to town planning.

In 1940 the Report of the Royal Commission on the Distribution of Industrial Population was published (Cmd. 6153). Sir Montague Barlow had been the chairman. The Report recommended a national policy for the redevelopment of congested cities and decentralization and dispersal of both industries and industrial population along with the creation of new urban centres in the form of garden cities or garden suburbs, satellite towns, trading estates, or the further development of existing small towns or regional centres, and other appropriate methods.

The major difference between garden cities and satellite towns is the method of control and finance. The former are the result of private enterprise while the latter have been financed by a local authority. Both were attempts to provide industry and homes and centres for community life whereas trading estates were primarily for the benefit of industry. In principle the Barlow Report stated that it was the function of the British Government to provide a civic approach to land planning, and that a healthy, civilized life would not be readily achieved in overcrowded, sprawling conurbations.

Decongestion of cities and dispersal of population and industry were also studied by the Uthwatt Committee on Compensation and Betterment (Cmd. 6386), and the Scott Committee on Land Utilization in Rural Areas (Cmd. 6378), both of which had been created to study the recommendations of the Barlow Report. The Town Planning Act, 1944 showed that the government realized the need for the dispersal of excess industry, business, and people, from overcrowded centres to New Towns on rural sites, and existing county towns which could be expanded away from the urban masses and quite separate from them. This 1944 Act had as its main purpose the endowment of the local authorities with new powers to acquire land to provide for "the re-location of population and industry".

One very significant publication related to the planning of New Towns was Patrick Abercrombie's "Greater London Plan", 1944. Essentially it aimed at a reduction of population within the congested part of London (Abercrombie, 1944). The establishment of a green belt was to help make up for the deficiency of open space in the city, and the movement of industry and people to an Outer Ring of towns beyond the green belt was to relieve the central parts of the city.

Reports of the New Towns Committee

A positive link exists between the Greater London Plan and the work of the New Towns Committee which was established in 1945 under the chairmanship of Lord Reith and had as its terms of reference, "To consider the general questions of the establishment, development, organization and administration that will arise in the promotion of New Towns in furtherance of a policy of planned decentralisation from congested urban areas; and in accordance therewith to suggest guiding principles on which such Towns should be established and developed as self-contained and balanced communities for working and living" (Cmd. 6759, p.3). The Committee's Final Report published in July, 1946 followed two interim reports earlier in the year. At the outset the Final Report states that no standardized pattern or physical structure of towns was implied in its recommendations. Coming, as it

did, so soon after the Second World War, certain indispensable buildings such as houses and factories, were claimed to have priority, and that the provision of these and anything else would depend on the economic situation of the country, the employment policy, and the rising standard of national income.

Both town expansion and the building of completely new towns were considered. Although there might have been the benefit of existing nuclei on which to work, the absence of existing development would give greater freedom to plan for the requirements of the New Town. The facilities of small towns would in many cases be unsuitable or inadequate for an increased population. Even the established traditions and character of the old towns would likely be lost with a sudden expansion of population from other environments. Taking into consideration various aspects of development, the Committee came to the conclusion that the balance of the advantages was entirely with the New Towns which could be built on land with relatively low values, be brought more easily under single ownership, and be built with greater speed; although the building of both was advisable. The Report implied the expansion of small rather than large towns. J.H. Nicholson has also considered it is possibly best to inherit a town of at most 5,000 inhabitants which could give character and focus to the New Town without seriously impeding planning or resisting integration (Nicholson, 1961). More recently, however, emphasis has been placed on the further development of sizeable existing towns, such as Warrington and Peterborough, so that advantage can be taken of the existing administrative machinery which could contribute to the expansion, and the presence of public services and good shopping centres which are on a sufficiently large scale to enable a big programme of house building to start quickly. The possibility of expansion of existing industry instead of the need to attract industries that are completely new to the area, and the existence of a more balanced population structure are further advantages. In other words, many of the doubtful advantages of small town expansion where a radical change in form and character

would occur, might in fact be considerable advantages in the expansion of a large town which would consist largely of a series of increments and some re-planning.

New Towns Act, 1946

During the twentieth century several Acts have been passed, commencing with the Housing, Town Planning, etc. Act in 1909 which was mainly concerned with the control of suburban development on land that had not previously been built on. It was not until the New Towns Act, 1946 that the government empowered the Minister of Town and Country Planning to appoint Corporations with the necessary powers and treasury finance, to secure the development of New Towns. The New Towns were conceived as a method of moving more than a million people from the central districts of London to relieve overcrowding, at the same time as avoiding further expansion, but still providing communities with accommodation, employment and the amenities of urban life. They were to follow in the tradition of garden cities as self-contained communities rather than satellites or dormitory towns, although the short distances from London would mean its facilities were still within reach. Apart from the ring of New Towns around London, several have been built elsewhere in order to decentralize industry and population, and thus relieve congestion in old, overcrowded areas, and for other reasons, such as housing the mining population at Peterlee, or the revitalisation of life and industry in the North-east of England, at Washington. During this decade a greater emphasis has been placed on the development of New Towns in the Midlands and North-west England.

The first New Towns were built far enough from their parent cities to be independent for their daily requirements. Compared with these, in Scotland, both East Kilbride and Cumbernauld are closer to their parent city, Glasgow. However, Glenrothes, in Fife, built primarily for a purpose other than to relieve congestion, is 55 miles away from Glasgow with which it now has overspill agreements.

The sites of the New Towns have depended on more than proximity to the parent city. Social, economic, strategic and aesthetic considerations were normally taken into account as well. Suitable sites demanded stable, unbuilt-on land, satisfactory drainage, the possibility of road and rail access, provision of a water supply, and a location that could attract industry. Existing regional and local features and established services were of great importance.

Size of New Towns

Many British planners have maintained that unlimited urban growth is a serious fault of urbanism, but others have felt that by the use of flexible designs the population sizes of cities can be altered. Probably the argument that most strongly rejects a controlled size of population in a town is consideration of the varying spatial aspects of such things as the influential radius of a primary school, the limits of face to face acquaintance groups and the sizes of community facilities. These features and many others require different optimal areas and populations. Lewis Mumford stresses the importance of expressing size as a function of social relationships to be served (Mumford, 1940). In fact, the optimum population differs according to the approach, be it economic and the need for a population size that will support certain social and economic concerns; or purely social, with the need for a level that is likely to establish face-to-face acquaintanceships; or political and of a size that would enable political action.

At present the size of the newest towns envisaged is much greater than formerly, that is, between 60,000 and 200,000 and according to the Prime Minister at Stevenage on 1.7.1967, this can be achieved and a wider range of urban facilities can be provided economically, only in large towns. Furthermore, it is currently thought that the larger the town, the better the traditional pattern of centres is likely to work in spite of severe traffic problems. This of course assumes that the traditional pattern is the most desirable.

The Future of New Towns

Several groups within Great Britain have expressed their opposition to the New Towns. The opponents include those with agricultural interests, but Robin Best considers that the impact of New Towns has caused few appreciable alterations in the agriculture of surrounding districts, apart from purely local effects (Best, 1964). Rural preservationists, property owners, and politicians who argue that planning limits the freedom of the individual, and is contrary to democratic outlook, all raise objections to the building of New Towns (Orlans, 1952).

In addition to such New Towns opponents, some people consider that New Towns have been a failure. The reasons have included social, economic and architectural facets. J.M. Richards blamed the national economic situation which restricted the amount of capital allocated to New Towns, and consequently limited the amount of building that could be commenced. As a result he felt that Development Corporations did nothing but build houses, and this as purely political expediency. He has also criticized the lack of urban qualities and the way the lack of a town centre at a certain stage has prevented cohesion of a town, giving it the appearance of a pre-war Garden Suburb or housing estate. He was one of several architects who believed that a town should be a built-up area so that it would provide a particular way of life, and be a place where those who so desired, could live close together, and experience a sense of enclosure in the streets. The New Towns in England with their scattered two-storey buildings and open spaces made him feel "marooned in a desert of grass verges and concrete roadways" (Richards, 1953).

Other architects have criticized the "low" densities of New Towns because they are visually unattractive. Tall blocks and their higher densities have been justified because of their visual impact. Some sociologists have considered that the New Towns have failed on sociological grounds because insufficient study has been given to the inter-dependence of new and old towns. C. Abrams believed that the bulk of population growth would continue within

existing cities and at their peripheries, and that both opportunities for work and more flexible living were greater in big cities than the New Towns (Abrams, 1953). Failure has also been suggested by those who cannot see the improvements expected in the conurbations. For example, because urban sprawl has continued it is claimed that there have been too few New Towns, or they have grown too slowly, or they have not attracted the right people and industries to solve the problems of the overcrowded industrial areas of London and Glasgow. Certain sociologists have claimed people are unhappy in the New Towns, and newspaper headlines such as "New Town Blues" and "New Town Neurosis" have been followed by articles referring to the unhappiness and neurotic tendencies seen by doctors in the New Towns. These people have considered that higher densities would bring people closer together, but have not allowed for the fact that physical propinquity does not necessarily mean social closeness.

In spite of the foregoing, optimism about the progress and the future of the New Towns prevails. In Scotland, the relief of congestion in Glasgow has been of prime importance. In Hansard 18.2.57 it is reported that Mr. J. MacLay, the Secretary of State for Scotland said at the second reading of the Housing (Scotland) Bill that even with an annual output of 5,000 houses in Glasgow it would still be necessary to provide for those who would ultimately have to move out.

Fundamental goals of the New Towns continue to be the provision of decent living conditions for people who have little prospect of them; the establishment of industry to bring workers and work together in order to eliminate long journeys and overcrowding with resultant unhealthy living patterns around established industrial areas; the more rational utilization of land uses through reduced densities in the city centres; and the check of urban sprawl, with controlled growth of old and New Towns through planned expansion. Hence, the present situation exists, with the New Towns accepting planned and organized immigration, co-ordinated with the establishment of industry and business, so that an expansion in local employment initiates population

increase. Because the sizes of the ultimate populations have been stipulated it will be necessary to halt immigration before the ultimate population level is reached, in order to allow for natural increase. The Development Corporations with fairly wide powers, the ability to borrow money from the Treasury and the opportunity to acquire sufficient land so that it is under single ownership, are in a more favoured position for making a success of the New Towns than individual or other private concerns.

The success of New Towns is influenced by the way in which each is planned both chronologically and chorologically, and to approach the ideal, the town must be successful from aesthetic, social and economic points of view.

Peter Self commented on the design and layout as being "a compromise between plans nurtured in a mood of expansiveness and applied under conditions of financial stringency, between the opportunity for architectural and social experiment and the conservatism of popular taste" (Self, 1957, p.88).

The extent to which the design and layout affects the way of life in the New Towns, in relation to the sociological aims of the planners, is the theme of this work. The neighbourhood concept in the planning of residential units has been recommended in town planning theory by sociologists and planners. An examination of the distribution of various facets of the way of life in selected residential units should illustrate the degree of coincidence existing between sociological and physical features. It should also suggest the effect that a particular plan has had, in aiding interaction and cohesiveness among residents, and of encouraging a sense of separate identity from other residential areas, at a particular stage in the development of the unit.

In Part I, neighbourhoods have been discussed in order to illustrate variations in the concept. Part II gives a description of the Scottish New Towns so that differences in the reasons for their designation, location, plans, physical features and demographic characteristics provide a background for the third part. Part III is devoted to the results of fieldwork carried out in 1967 and 1968 to

achieve an understanding of the way of life of the residents. Residential units in East Kilbride, Glenrothes, and Livingston were studied through a survey of 10% of the population, by using a questionnaire and interview technique. Permission to carry out the survey was sought from the Development Corporations of the Scottish New Towns and was granted for the towns named above. As a sociological survey was under way in Cumbernauld, it was preferred that another survey should not be conducted. Irvine's development was insufficiently advanced to be of value in this study.

The aim of the survey was to gain information, not otherwise obtainable, about shopping habits, occupations, schools attended, physical recreational activities, entertainment, and visiting habits. By determining common spatial traits in these activities, among the population of a residential unit or part of a unit, it was possible to consider relationships between the activities and the location of physical features and facilities in the unit or nearby.

Specific items of information were punched on computer cards so that computerized maps could be printed. Examples of the maps can be seen in Volume II. A study of the distributions on each map, verified any concentrations and variations occurring in the residential units.

One of the methods employed in the past for the identification of neighbourhoods has been to investigate the hinterlands of various services. The aim here, has been to determine the degree to which the population of a residential unit uses local facilities, rather than the extent of the area covered by a specific service. In addition, the present survey established links of the population with other localities, something that a study of service hinterlands omits. It was considered that this kind of survey, carried out in selected residential units was most suitable for providing the type of information required, and in the time available for enabling as full an understanding as possible of the effect of the town plan.

LOCATION OF SCOTTISH NEW TOWNS

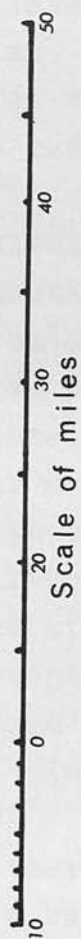
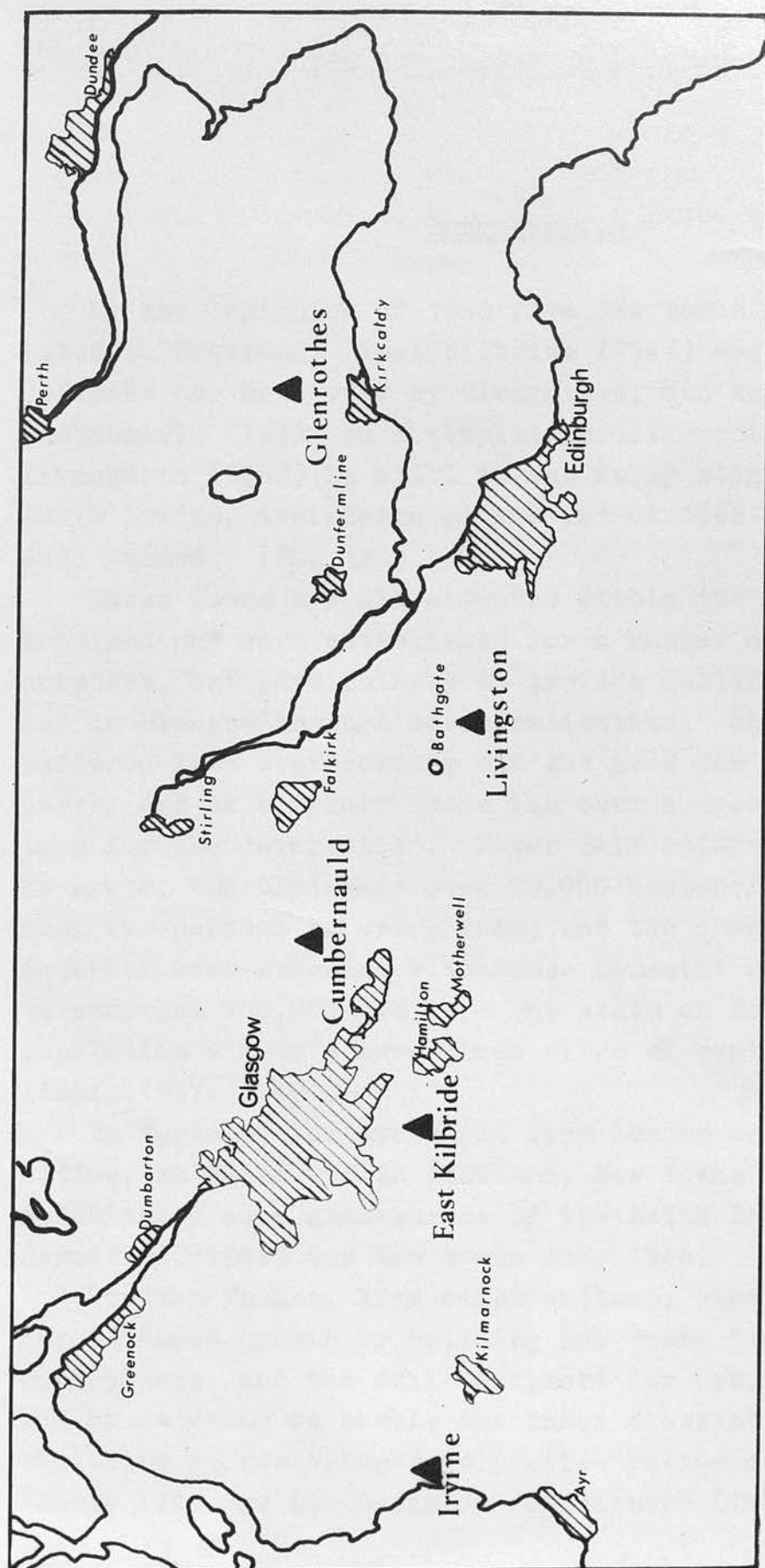


Fig. 1.1

PART I

THE NEIGHBOURHOOD CONCEPT

Introduction

By the beginning of 1969 five New Towns had been designated in Scotland. East Kilbride (1947) was the first, followed the next year by Glenrothes, and much later by Cumbernauld (1956) on a completely different plan. Livingston (1962) is still in the early stages of development while Irvine, designated at the end of 1966 has had its first sods turned (Fig.1.1).

These Towns are all situated within the Central Belt of Scotland and were established for a number of distinct purposes, but particularly to provide relief from overcrowding in Glasgow through decentralisation. Glasgow has suffered from overcrowding and the need for renewal in some parts, and as a result there has been a need for accommodation for the 'overspill'. Peter Self referred to this when he wrote, "On Clydeside over 70,000 households live at more than two persons to every room, and the combined effect of internal over-crowding with dense tenement development is to compress 700,000 people - one-sixth of Scotland's population - into a mere three miles of central Glasgow " (Self, 1957, p.40).

In England, for overspill from London and other large cities, in Wales and in Scotland, New Towns have been established as a consequence of the Reith Report (New Towns Committee, 1946) and New Towns Act, 1946.

Wyndham Thomas, like other writers, stressed the need for balanced growth by building New Towns "to provide homes, work-places, and the full equipment for urban living ... and by so doing to enable the inner districts of the great cities to be redeveloped to provide better conditions for family life and for business efficiency" (Thomas, 1968).

The term 'overspill' has been used in various ways, and some of the Development Corporations will use the word only to refer to people who have actually been transferred to a New Town under 'overspill' agreements which involve the contribution of a sum of money by the exporting authority to help rehouse a family. In this context it has been defined as "a voluntary but assisted migration of workers to communities intended to provide a better environment" (Self, 1957). Others have used the term more broadly as in the following two definitions:

"The redevelopment of central areas at modern standards can take place only if some of the population to be displaced is rehoused elsewhere. When this rehousing is provided outside the administrative area of the local authority it is called by the ungainly term 'overspill'." (Cullingworth, 1960b). J.B. Cullingworth who wrote this has also referred to the New Towns Act, 1946 as the "first instalment of the overspill plan".

G.C. Dickinson made an additional point in his definition of the term, because he referred to the necessity of keeping reasonable density standards by providing accommodation for areas of increasing population. He said that overspill refers to "population which cannot be contained within an area for which a plan is being prepared. Its origins lie in the redevelopment at lower densities of areas of substandard housing or in the persistent accumulation of population by natural increase, both factors combining to provide substantial totals from many of the large towns in Britain and particularly from Greater London." (Dickinson, 1962, p.49.).

In "Neighbourhood and Community" is a further suggestion that previously when such people have been rehoused there has been an impoverishment in social life (Simey, 1954). Whether people move to New Towns or elsewhere it involves an uprooting from their earlier environment, and usually a change in their way of life. There needs to be a readjustment of their habits, attitudes and relationships, which people who have lived in a particularly limited environment frequently find difficult. This has important implications

regarding the distance of the reception areas from the former homes. One may ask if the upset caused by removal is any different if a family moves fifty miles rather than five miles from its former environment. In fact, does ease of attracting 'overspill' families depend on the distance from the parent city?

While the rehousing of people and the decentralisation of industry from the Glasgow conurbation were the chief reasons for building East Kilbride and Cumbernauld, the chief purpose for the establishment of Glenrothes was to house coal-miners who would be working in East Fife, particularly at the Rothes Colliery. It was also with the aim of making Glenrothes a self-contained and balanced town with industries, in addition to the coal-mining, and a population that was not solely of coal-miners. It has, in fact, also played some part in relieving the population pressure in Glasgow. Livingston was built to provide further for Glasgow's overspill as well as to form a regional centre in West Lothian and an industrial growth point away from the existing industrial areas. At the same time it was expected to revitalize an area that had become depressed with the decline of the shale oil and coal-mining industries. Irvine likewise is being built to provide a reception area for overspill and assist in the development of the Scottish economy.

CHAPTER I

THE DEVELOPMENT OF THE NEIGHBOURHOOD IDEA

The Neighbourhood Concept

The planning of these New Towns has on the whole been based on the recommendations of the Reith Committee in the Reports of the New Towns Committee. In Section 7 on "Layout, Design and Constructional Standards" the Report recommends that the principal roads and topographic features should be used to help group residential areas of

the town into neighbourhoods with "convenient placing of primary schools, minor groups of shops, churches, refreshment houses, meeting places" (New Towns Committee, 1946).

Among the Scottish New Towns the concept of the neighbourhood has been followed most closely in East Kilbride, Cumbernauld's original plan having eliminated it altogether. Because of the importance given to the place of the neighbourhood unit in planning, various aspects of the concept will be discussed before a description of the plans of the Scottish New Towns is given. In the discussions that follow 'neighbourhood' will be used to refer to something that already exists in established towns while 'neighbourhood unit' will refer to a planned area.

The idea of neighbourhood units gained particular favour after the war, possibly as a reaction to the unstructured monotony of earlier housing estates, and C.B. Purdom wrote, "One receives the impression that the idea of the neighbourhood unit was a godsend, for it enabled the planners to work on a constructive principle, and one wonders what they would have done without it" (Purdom, 1949, p.419).

The term 'neighbourhood' has been used by architects, sociologists, town planners, and geographers in a variety of contexts and with varying definitions. Because their concern is primarily with the environment and building, architects tend to think of a neighbourhood as an area separated from other areas on the basis of the type, age and conditions of the buildings, and consequently they seek, when planning by neighbourhoods, to provide a better physical and visual environment. At the same time this unification of architectural style in an area is considered by many to give a sense of social unity and to make an impact upon the attitudes and social characteristics of the users. Some New Towns have employed different architects to design different neighbourhood units so that there is diversity in the style of units throughout the town.

The sociologist often lays more emphasis on such a unit as an area where the inhabitants know each other, and a sense of neighbourliness is developed; or where there is

a homogeneous social class with people following a similar way of life, but not necessarily knowing each other well; or even where there is considerable community activity. Until fairly recently the planner has tended to consider the neighbourhood more as a population grouping of up to 10,000 people; or as a catchment area for a particular amenity such as a school or a group of shops (Hacon, 1955). Most of these people have been concerned with the identification of the neighbourhoods in established towns and cities where they have not been purposefully planned. Lewis Mumford has even referred to them as a "fact of nature" and suggested that they exist at least in an inchoate form in most cities (Mumford, 1954).

Little research seems to have been done to determine at what stage of city development in terms of population size, age of community, the area of the city or any other criteria, neighbourhoods become identifiable. It has been suggested that any settled town of 20,000 people and more, shows a subdivision into residential areas with a social and commercial focus and that they have usually occurred rather by accident than design (Taylor et al., 1960). But there is some doubt about the ubiquitous existence of neighbourhoods in towns over a specific size and this is partly because the definitions of 'neighbourhood' vary so much, according to the point of view of the writer. One might ask if planning by neighbourhood units is justified in New Towns when the genesis of established neighbourhoods is not fully understood. The County of London Plan made use of existing groups and tried to reinforce them, but with the building of New Towns no such base exists. (Forshaw and Abercrombie, 1943, chap.1.)

"Design of Dwellings", known as the Dudley Report, suggests that normally people do not think of a town as a number of units, but rather as "a single though complex organism; the home of a single, though complex community" (Ministry of Health, 1944, p.58). The Report stated that although this is the ideal, the planning of neighbourhood units would "allow a full growth of community spirit and neighbourhood feeling", because a town of over 50,000 people

is too large to be fully comprehended. Neighbourhood units were recommended for incorporation in the redevelopment of towns so that "each unit while still essentially but a single part of a greater whole becomes a comprehensive entity in itself". The neighbourhood unit was, therefore, considered as the means of obtaining a feeling of neighbourhood or community which was described as "one of the fundamentals of social well-being" (Ministry of Health, 1944, p.58-9).

It seems to be fairly widely recognized by sociologists that people associate in groups according to their background, education, type of work and various cultural and recreational interests, and such social groupings appear to have been influenced to a certain extent by locality.

My conception of a neighbourhood is that of a social and geographic unit, viz. a small localized community which comes into existence because of the continued interaction of residents and which exhibits a certain sense of cohesion, and a sense of separate identity from other residential areas.

According to James Dahir's bibliography the concept has had widespread acceptance in Europe, the U.S.S.R., North America and elsewhere (Dahir, 1947).

Historical Development

The use of neighbourhood units as a concept in town planning has a long history and has nearly always been based on philosophical ideals. Thomas More suggested using them in "Utopia" in the sixteenth century. At the end of last century Ebenezer Howard put forward the idea in "Garden Cities of To-morrow".* "Six magnificent boulevards - each 120 feet wide - traverse the city from centre to circumference dividing it into six parts or wards. In the centre is a circular space containing about five and a half acres laid out as a beautiful and well-watered garden; and, surrounding this garden, each standing in its own ample grounds, are the larger public buildings - town hall,

* This book was first published in 1898 as "To-morrow: a Peaceful Path to Real Reform".

principal concert and lecture hall, theatre, library, museum, picture gallery and hospital." Beyond the garden was to be a large park with recreation grounds, and further out still were a series of belts, the first with the main shopping area, then the 'Grand Avenue' with its green belt, public schools, playgrounds, gardens and churches and beyond that were the residential areas. On the circumference of the town were factories, warehouses, markets, etc. near the railway line which skirted the town. By limiting the population and area of the ward, Howard's scheme virtually prevented further expansion once the town had been built (Howard, 1946, p.51-5).

Clarence Perry, an American sociologist, had lived in Forest Hill Gardens, a planned suburban area of New York where it was believed that facilities had been sited in such a way that a sense of locality was achieved. He was one of the first to plan a neighbourhood unit scheme, and this was expounded in a paper entitled "A Community Unit in City Planning and Development" at a joint meeting of the American Sociological Society and the National Community Centre Association in 1923. In 1929 his scheme appeared in "The Neighborhood Unit" (Perry, 1929) and ten years later in "Housing for the Machine Age" (Perry, 1939). Although he knew a detailed model of residential development was not possible because of varying local conditions he showed that by creating a model, in theory a unit could exist without being spontaneous. He also felt that because the central locations of certain institutions prevented them from serving the city thoroughly, decentralization would be aided by this type of plan.

In "Housing for the Machine Age" he reiterated the six principles of a neighbourhood unit as: "1. Size. A residential unit should provide housing for that population for which one elementary school is ordinarily required, its actual area depending upon its population density. 2. Boundaries. The unit should be bounded on all sides by arterial streets, sufficiently wide to facilitate its by-passing, instead of penetration, by through traffic. 3. Open Spaces. A system of small parks and recreation

spaces, planned to meet the needs of the particular neighbourhood should be provided. 4. Institution Sites. Sites for the school and other institutions having service spheres coinciding with the limits of the unit should be suitably grouped coinciding with the limits of the unit should be suitably grouped about a central point, or common. 5. Local Shops. One or more shopping districts adequate for the population to be served should be laid out in the circumference of the unit, preferably at traffic junctions and adjacent to similar districts of adjoining neighbourhoods. 6. Internal Street System. The unit should be provided with a special street system ... being designed to facilitate circulation within the unit and to discourage its use by through traffic." (Perry, 1939, p.51.)

Primarily Perry sought to devise a plan where the re-arrangement of the street pattern could group all facilities and institutions necessary to daily living within half a mile of the home, that is, walking distance, and an environment conducive to the development of a well-rounded family life.

By 'institutions' he meant the neighbourhood community centre with an elementary school, social club, indoor recreational facilities including an auditorium, gymnasium, pool, small meeting rooms, church, all of which he believed were necessary for the comfort and development of the family. One reason for this emphasis on self-containment of the neighbourhood unit was to make its construction easier by avoiding the need to wait for development of adjoining areas.

Perry's plan has been criticized for its emphasis on physical aspects such as convenience of shops, schools, parks, but he was aware of the social needs of the inhabitants as illustrated by the types of establishments he recommended.

At the beginning of the century Charles H. Cooley had had a considerable influence on planning mainly through his theories of primary face-to-face groups, and the way in which the size of the residential unit was determined by the possibility of everyday contacts. Perry expressed

his concern for things like the limited conditions conducive to neighbourliness in the existing city, and for lack of space for children, feeling that man tended to degenerate when opportunities for face-to-face contacts were missing partly because the community exercised control over an individual's behaviour.

The Village as the Basis of the Concept

Perry was one of the several advocates of the neighbourhood theory who tried to give a village style to the unit. He intended to do this by focusing it on a square which he believed would be a visible sign of unity and would "be an appropriate location for a flagpole, a memorial monument, a bandstand, or an ornamental fountain", and was to be the location of celebrations (Perry, 1939, p.65). He believed that residents would be brought together by the use of such facilities and thus know each other and make friends. Many people have criticized this, for example, Peter Mann, who questioned the assumption that "propinquity produces pals" (Mann, 1958). Leo Kuper, in his survey of a Coventry neighbourhood forms a tentative conclusion that "the more intimate arrangement of the cul-de-sacs and the squares creates instability", and that the less intimate forms of layout are more conducive to adjustment (Kuper, 1953, p.150).

The use of the 'village' type of neighbourhood unit had its origin in the belief of many British and American planners that the village constituted the ideal community. "The neighbourhood unit is, in fact, the modern urban counterpart of the village, and town and urban areas can still be broken up into the old constituent villages which were swallowed up by the coming of the Industrial Revolution or cut off and isolated by a railway or a motor road" (National Council of Social Service, 1950, p.14).

Nearly every aspect of village life has been compared on a theoretical basis with life in the neighbourhood of an urban community, and many criticisms have resulted because of the numerous differences that exist between the two.

The main attraction of the village was meant to be the feeling of belonging and the friendliness or neighbourliness of the community, but it is questionable whether in fact such ideal conditions existed in an environment with an inflexible social structure, narrow outlook and reliance on gossip. The extent of rural depopulation in the Highlands, the Borders and Galloway may have resulted partly from dissatisfaction with such community life, in addition to considerations such as limited employment opportunities or primitive physical conditions. Some people, at least, prefer to be independent of communal ties and away from kith and kin in the comparative anonymity of the town.

The degree of isolation and the geographical relationship of the village to other communities differs greatly from those of a neighbourhood with other neighbourhoods and the town centre so that the social and physical nature of metropolitan areas makes it virtually impossible to create a small-town type of environment.

In the past, because of its relative isolation in the countryside, a considerable amount of self-containment would have been imposed, but with modern communications there is less need for this, even in quite isolated areas. No longer are the villagers obliged to focus all their activities on the village. Where village social life took place in a physically segregated locality, lack of outside contact may have forced a psychological closeness and unity between the villagers, particularly when they were faced with common difficulties. This feeling is emphasized when the village is congruent with the economic community, as in villages based on farming or mining, involving fairly small labour units and extended family groups.

Because a village is often based on one function there is a tendency for it to be primarily homogeneous in income, race, nationality and religion, and a rather inflexible structure usually exists with the landowner, minister and teacher near the top of the social hierarchy. Present urban planning policy stresses that the neighbourhood unit should be as heterogeneous as possible. Hence, the social

control which is maintained through a network of social and economic ties in the village, is not as strong in urban environments.

Contacts beyond the local community in the town are more readily made because work places are often well beyond the residential areas and much more time is spent outwith these areas. The village dwellers, however, are obliged to be members of a primary group, and this is not likely to be a pleasing feature of life when people have irreconcilable convictions. With only a few hundred people in a village there is little choice in the selection of friends, whereas the urban neighbourhood of 5,000 or 10,000 people offers a larger number from which one may choose, and in addition close enough to permit mixing with others from beyond the neighbourhood. If primary group membership is to be avoided in a small community migration is usually the only escape.

There have been some attempts to recreate the idealized village way of life within urban environments by copying rural activities such as handicrafts, but insufficient account has been taken of the multifarious differing characteristics, such as the specialist nature of such activities in the towns. The large town or city provides for such large numbers that it can cater for a wider range of interests, but the urban dwellers' activities are likely to be much more widespread as a result. Thus identity of interests and concern for conditions of the community which result from localization of residence in the village, are less likely in the neighbourhood of a town.

As a result it appears that the neighbourhood unit has a limited chance of success if success is measured by the extent of its similarity to a village, because of the greater size, mobility of population, heterogeneity, and proximity to other residential areas, of the planned neighbourhood unit.

If the centre will require modifications for increased traffic. If the neighbourhoods are built further from the centre the cohesion and unity of the whole town is likely to diminish even if each neighbourhood unit has its own identity. If neighbourhood units are added haphazardly the economic costs of building and transport are increased.

Reasons for Neighbourhood Planning

Apart from the desire to recreate a village type of community other reasons are given for using the neighbourhood unit in the planning of some of the New Towns.

The simplification of total planning is one reason. Town planners are frequently given jurisdiction over an extremely complex city which may be considered as a single organism, but the vastness of the area forces them to break it down into manageable sections so that in fact neighbourhood units have been built primarily for administrative convenience. By planning in this way there is no need to wait for the development of adjacent areas. Perry thought that many excellent projects had failed because no way of detaching a unit from plans relating to surrounding districts had been found.

In addition they are said to provide agreeable visual patterns and numerical groupings, as well as acting as a useful measure for the provision of public services and institutions. E.D. Simon wrote, "It is possible in planning a unit with fixed boundaries for about 10,000 persons to make a thorough study of the requirements of each family and of each individual and to ensure that all these requirements shall be conveniently met within the unit" (Simon, 1945, p.193).

It has even been suggested that units could be added indefinitely, to increase the size of the town as necessary, though the building of an infinite number of neighbourhood units might be as disastrous as sprawl itself, especially if the town is of a linear pattern. Abercrombie recommended such units in the Greater London Plan in order to break down formless sprawl (Abercrombie, 1944). However, if additional rings of neighbourhood units are built around the town centre the distance from the centre to the residential areas will increase, and the road system to the centre will require modifications for increased traffic. If the neighbourhoods are built further from the centre the cohesion and unity of the whole town is likely to diminish even if each neighbourhood unit has its own identity. If neighbourhood units are added haphazardly the economic costs of building and transport are increased.

Sociological arguments have also been put forward in favour of planning by neighbourhood units. On the whole, these arguments rest in the belief that primary relationships are more easily developed within the neighbourhood unit and these will lead to cohesion. Also the control exercised through primary relationships within the unit is believed to transform certain social behaviour such as the formation of undesirable gangs. For newcomers from a lively local community the change of residence is considered to be easier if they move to a neighbourhood unit. Others believe that the neighbourhood community helps personal adjustment because all facets of life are provided for, a factor of importance in an era of specialization.

Not all of the arguments written above have been taken very seriously, but after the Second World War they gained much acceptance partly because war damage made property seem almost valueless compared with the value of good neighbours. The spirit of co-operation during the war was still needed during the rebuilding, and neighbourhood units seemed to be one method of maintaining this.

However not everyone has given full support to the concept. Lewis Mumford, for example, considered that the more satisfactory the neighbourhood the greater would be the danger of self-complacency and psychological self-enclosure, promoting a spirit of isolationism.

Peter Mann concluded, "Indeed it can be said that, in some aspects, the neighbourhood unit is 'anti-urban', and its adoption and support may well be taken as an instance of our society refusing to face up to the social structure of urban life" (Mann, 1958).

In spite of these criticisms neighbourhood units have been used in planning of some of the New Towns. Svend Riemer believes them to be an attempt to make spatial arrangements subservient to social function (Riemer, 1958, p.197), as do the Town and Country Planning Association when they advocate the neighbourhood principle as a means of catering for people's daily needs such as easy access to schools, shops, small play areas and clinics and to encourage the highly localized communal activities.

Another major aim has been to eliminate such difficulties of the present environment as traffic dangers for children and the inconvenient situation of shops, work places, open spaces, loud noises, polluted air (Town and Country Planning Association, 1962). Kuper however, thought that this functional approach is largely a legacy from inadequate urban planning in the past, this being the reason behind attempts to balance appearance and arrangement of physical structures and functions (Kuper, 1951, p.238).

CHAPTER II

THE PHYSICAL FORM OF THE NEIGHBOURHOOD UNIT

Sociologists have levelled a certain amount of criticism at planners who have emphasized physical features in planning, but they try to excuse themselves by stating that they are expected to produce improvements in the environment in order to achieve poorly defined social aims, by using techniques the effect of which remains unproven, all for future communities which they cannot know.

The aims of any town planning are dependent on the philosophy of the planners, and the form of the plan whether by neighbourhood units or not, will depend on the way in which they consider these aims are best attained. Generally speaking the two major aims of most plans are to provide for the convenience (in terms of time and energy) of the residents, including the provision of, and easy access to certain facilities; and to provide for the well-being and happiness of individuals and the town as a whole. The town planner is therefore involved with the preparation of a physical design to meet social needs. Catherine Bauer referred to the "qualitative social decisions, 'value judgments' and individual needs and preferences, family and community functions, group relations, and the whole pattern of civic life" made by the experts employed in the

field - builders, financiers, lawyers, administrators, economists, architects, city planners, engineers - who are frequently ill-equipped to make such decisions (Bauer, 1952, p.9).

A similar comment was made by Festinger et al. when they said, "The architect who builds a house or designs a site plan, and decides where the roads will and will not go ... which directions the houses will face and how close together they will be, also is deciding to a large extent the pattern of social life among the people who will live in those houses" (Festinger et al., 1950).

The importance of the link between the social aspect and the physical plan was expressed by A.E. Smailes, "Sound planning is concerned with more than zoning land-use, devising housing schemes, networks of piped or cabled services and the layout of roads; it is equally concerned with the provision of adequate, but not redundant, service centres, and with their proper location. It might even produce pleasing elevations and harmonious groupings of structures and yet fail miserably because of their lack of relation to the needs of the people" (Smailes, 1951).

According to an article by D.L. Foley one of town planning's central functions "is to provide a good physical environment; a physical environment of such good quality for the promotion of a healthy and civilized life", and that "Town planning, as part of a broader social programme, is responsible for providing the physical basis for better urban community life" (Foley, 1960).

This link between physical and social aspects was explained by Clarence Perry when he wrote about the benefit to be derived from neighbourhood unit planning which "brings the local community into relief and enables residents to see it as something apart from the rest of the city, as a distinct entity which has its own peculiar qualities and needs".

The Dudley Report written prior to the Reports of the New Towns Committee recommended that some organization of the physical form is necessary for the social well-being. This would "aid in every way the full development of

community life and enable a proper measure of social amenities to be provided and arranged to advantage in each residential neighbourhood" (Ministry of Health, 1944, p.58).

If there is such a strong relationship between the physical plan and the community life there is undoubtedly a tremendous scope for co-operation between town planners, sociologists, architects and all others concerned with town planning and environmental studies, but some people do not recognize any significant relationship. Irving Rosow stated, "There is little conclusive evidence of more than ephemeral changes in social patterns through the medium of planned communities. Particularly, the integration of the community does not seem to be significantly greater than is found in homogeneous, unplanned neighbourhoods" (Rosow, 1961, p.132).

A second opinion is that of Maurice Broady who considered that "the better relationship between this physical form and the creation of a better society is extremely indirect", and "that the most a physical design can do, therefore, is to set conditions that are favourable or unfavourable to particular social activities" (Broady, 1966).

It therefore appears necessary to consider both physical and social characteristics of neighbourhood units before one can come to any conclusions about the effects of this type of planning in New Towns.

Boundaries

The quotation of Perry's written above, the Dudley Report and indeed the very word "unit" imply the existence of boundaries providing definable limits and a division between the neighbourhood and other residential areas or land uses. The idea of establishing well-defined borders usually aims at preserving and protecting the unity and special character of the unit.

The physical boundaries of both neighbourhoods and neighbourhood units have frequently been delimited by such features as railway lines, main roads, industrial estates, topographical features or open spaces. Perry made use of arterial streets to facilitate by-passing instead of

penetration of the neighbourhood unit by through traffic. Some physical barriers have failed to provide an effective boundary, but there is little doubt that they have a considerable part to play in creating an entity which is reinforced by the development of neighbourhood sentiment.

It is also possible that physical boundaries may limit the interaction of adjacent neighbourhoods to the extent that a spirit of isolationism is fostered and social divisions are reinforced. To avoid this, Stein and Wright, in their plan for Radburn, designed their neighbourhoods to overlap, the shopping centre being common to adjacent units, and with interaction between neighbourhoods being encouraged by the provision of under-passes, and by a continuous green core stretching from one side of the town to the other which was to act as a pedestrian promenade and a meeting place between neighbourhood units (Stein, 1951).

Assuming that boundaries are delimited for a purpose, the greatest care must be taken in placing them so that there is nothing arbitrary about their location. The location, the nature of the boundary, and the size and shape of the neighbourhood unit are all inter-related, so boundaries, like other aspects of the physical plan, are significant and may have an effect on the social life of the community.

It seems reasonable to suggest, however, that with the changing modes of life and technology, the size of the neighbourhood should be flexible. Even during the last half century neighbourhood boundaries in established towns have altered as the composition and layout of the towns have changed with the addition or withdrawal of open spaces, the construction of buildings or routeways, the changing importance and influence of focal points, and even the construction of amenities outwith the neighbourhood itself.

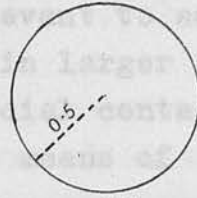
Distance and Size

The shape of the neighbourhood unit is partly determined by its relationship to other units and zones and the major road pattern. The shape, in its turn will help to determine the size, e.g. a square shape with a distance of

half a mile from the centre to the furthest point will cover a much smaller area than a circular shape of that radius.



area = 0.49



area = 0.79

This of course only takes into account physical distances, and is not considering either economic or social distances (Watson, 1955). It assumes that a major focal point lies at the centre, that walking distance is directly to the centre, and that it is the major criterion in determining the size of the neighbourhood unit. Because there is usually an emphasis on minimising the walking distances in the neighbourhood unit, the centre of the unit normally provides the site of the focus, and the distance from the focus to the periphery helps to determine the size of the unit.

Some plans have been based primarily on the walking distance to the nearest junior elementary school, others to the neighbourhood shops, the actual suggested distances varying from quarter of a mile to one mile. Opinion varies about the maximum distance people are willing to walk for their daily requirements, hence the size of units based on this criterion also varies. It demands a subjective judgment based on the convenience of the pedestrian rather than on economic or social grounds.

The Dudley Report also refers to the neighbourhood population being within ten minutes of the centre and bases its proposals on considerations of convenience and community. The importance of distance on social grounds can be seen when a physically big unit becomes operationally small through the failure of its margins to become integrated into the whole as happened in Brasilia (Viet, 1961). In another case a man living near a town centre may know none of his neighbours because his relationships with others

are not formed through proximity of dwellings, but through contacts made by other means, with people in other parts of the town. Riemer went as far as saying that he thought the dimension of space was more or less irrelevant to social relations in small communities, and even in larger communities space is only a barrier to social contact if we ignore the possibility of an effective means of transportation (Riemer, 1950).

Not only does it seem to be the distance to the focal point that is important, but also the extent to which the focus provides a climax of the plan. S.L.G. Beaufoy went further and stated that besides the provision of a definite centre or focal point the proper placing of various meeting places, churches, libraries, public houses, clubs, dance halls, clinics, schools, shops and open spaces are all focal points of community interest and have a definite inter-relation that should be reflected in the neighbourhood pattern (Beaufoy, 1948, p.392). Although others consider that not all of these features are a necessary part of every neighbourhood, it is the stress on the locational inter-relationship that is significant. Lewis Mumford likewise has stated that a neighbourhood demands the orderly provision and relationship in both space and time of a group of neighbourhood institutions - schools, meeting halls, shops, public houses, restaurants and local theatres (Mumford, 1954).

B.J. Garner describing models of settlement location and urban structure said that they assume a measurable degree of order in spatial behaviour. Although a planned community does not necessarily have the properties of models based on unplanned communities it is likely that some of the regularities he described will apply to all communities, and particularly, "the spatial distribution of human activity(which) reflects an ordered adjustment to the factor of distance" (Garner, 1967, p.304).

Festinger et al., in a sociological study, showed the importance of proximity when they tested social cohesion in a homogeneous community at the Massachusetts Institute of Technology where veteran students were housed at

at Westgate and Westgate West. They found differences even within courts, by measuring the ratio of in-court and out-court choices of friends, and that the amount of communication and interaction was a function of the proximity (Festinger et al., 1950).

Apart from aspects of distance and its relation to time and cost the significance of perceptual distance needs to be considered. Because people perceive things differently, they react to similar things in different ways. Tajfel has found that the perception of certain physical qualities of objects is modified in accordance with their value to the observer. It is likely, therefore, that the perception of distance to a facility in the town might also be modified in accordance with its attraction to the person concerned (Tajfel, 1966). Another psychologist asked, "What happens to the human perceptual system in unfamiliar situations?" (Gregory, 1966, p.226). The answer to this in relation to the perception of distance might be particularly relevant to a study of people who go to live in New Towns, particularly if the morphology and location of the town is vastly different from their previous environment.

Psychologists, sociologists, economists, and geographers are all aware of the influence of distance on a person's activities and it is for this reason that it plays such a significant part in the consideration of neighbourhoods.

CHAPTER III

POPULATION SIZE AND DENSITY

Population Size

It is clear that given constant population density the larger the area of the neighbourhood unit, the larger the number of people who can live there. The size of a neighbourhood has in fact most frequently been described in terms of the total population and density.

The size of population has been linked with the physical and social aspects of the neighbourhood unit plan by D.V. Glass. "The (neighbourhood) idea involves not simply a grouping of people in a unit convenient for certain local services and amenities - for which purpose it may be eminently practical - but also a social objective - a unit small enough to encourage a neighbourhood spirit and at the same time large enough to be relatively self-contained" (Glass, 1950). Other generalisations have also been made. D. Foley referred to the village ideal influencing British town planning when he expressed the emphasis on small, reasonably low density communities similar to a village which has a desirable community life; but F.S. Chapin said there is nothing yet to prove that social integration has any significant relationship with population size (Chapin, 1950, p.44).

Others have discussed the advantages and disadvantages of smaller and larger communities but without being explicit about the sizes. A.J. Reiss believes that it is in the large community that status anonymity is more readily preserved because speaking acquaintances are less numerous and less intimate (Reiss, 1959). Thus as size decreases, gossip increases and so does the importance of gossip as a means of social control. In the larger community there also appears to be less concern for the welfare of neighbours and less interest in the running of civic affairs if these are the concern of a large authority.

The chief advantage of a large community is the larger range of recreational, cultural, commercial and other facilities and amenities that can be provided, but at the same time there is a decrease in the part played by local activities.

Frequently the size of the population suggested has been arrived at in an effort to combine optimum numbers needed for the economic provision of certain services, and the numbers considered necessary for certain social ideals such as forming face-to-face acquaintanceships or acting as a group politically. But it has proved extremely difficult to relate the size of the neighbourhood unit to

the number to be served with the greatest possible convenience by schools, churches, community centre, public open space and certain shops because these facilities are not best served by the same number of people or even a multiple of that serving the smallest number.

The number of people proposed for a neighbourhood has also been related to the desire to achieve an economically balanced neighbourhood which would therefore need to provide a variety of employment opportunities, and this is very dependent on value judgments.

The figures suggested for neighbourhood units in Great Britain have varied between approximately 4,000 and 20,000 people depending on the function or functions of the unit, or the degree of support required by certain cultural, recreational, educational or commercial institutions. In the U.S.A. Perry related the size of the neighbourhood to the size of an American elementary school of 1000 to 1600 pupils, the school population being approximately one-sixth of the total population. He also felt that 5,000 people were necessary to develop group consciousness in the district.

Gropius and Wagner also thought that 5,000 would give the optimum population, this being based on the size of a psychological contact group that would permit the individual's contributions to society to be greater. They thought that people would then live happier and more convenient lives because of the existence of an effective group life (Gropius and Wagner, 1943).

At about the same time as Gropius and Wagner prepared their plan in the U.S.A. the National Council of Social Service in Great Britain recommended a population of between 5,000 and 10,000 per unit, the figures relating to the new junior and secondary schools under the 1944 Education Act, but the main criterion of size being one of friendliness. Little account is taken of whether people would mix, but rather that this number would allow them to mix. Abercrombie also suggested a maximum of 10,000 people based on the school proposals of the Ministry of Education. In the Greater London Plan are quoted the conclusions of the

Ministry: "If the planning of a neighbourhood unit could be based upon a population constituted so as to be an exact reproduction, according to social class and income, of the population as a whole, the best size would be either 5,000 to one school for children aged 5-7 and one for children aged 8-11, or alternatively a population of 10,000 containing two of each such schools". Further on in the Greater London Plan it is suggested that neighbourhoods would make provision for 5,000 to 10,000 people because that number would be "(a) small enough to facilitate acquaintance (b) large enough to provide for a full range of local social, recreational and educational facilities" (Abercrombie, 1944, p.114-5).

The Dudley Report recommended a neighbourhood population not exceeding 10,000 as a desirable size because "such a unit would be large enough (i) to embrace a wide variety of experience and tastes and yet small enough (ii) to possess easy accessibility between its parts and (iii) to provide an occasion for acquaintance". It also adds, "A unit of this size would contain most of the communal facilities required for the full development of the life of the neighbourhood" (Ministry of Health, 1944, p.59). Once again the figures are related to the size of the school as well.

The Reith Committee's recommendation was for neighbourhood units of 5,000 to 10,000, with the social centre or the school as the focal point.

Some sociologists consider that such large numbers do not help people to mix if they are shy or lacking in confidence, or if the narrowness of their interests makes it easier to identify themselves with a smaller community, while others would find it easy enough to make acquaintances under any circumstances. Others ask whether it is possible to have face-to-face contacts with between 5,000 and 10,000 people. C.B. Fawcett considered that a unit for residential settlement had to be much smaller than this if it were to be a satisfactory social unit, but as such it could not serve as an administrative unit or be economically self-contained. He suggested a residential unit called a "vill",

consisting of about two hundred families which at that time was reckoned as about 1000 persons. Five villas were to constitute a neighbourhood unit. He based the size of the villa on school classes of twenty to forty pupils so that the population of each school district would be 1200 to 2,400 people. He used the size of classes rather than the school as a whole so that it would be easier to cope with changing age structure. The main criticism levelled at his scheme is that it might result in a large number of segregated units where members are friendly among themselves but limited in contact with other members (Fawcett, 1944).

D.W. Riley believed that as "social groupings have become more selective, more particularized, more temporary, and more dispersed", local communities tend to be based on a street or small group of close neighbours (Riley, 1966, p.36).

Abercrombie was aware of this tendency for the population to break down into smaller units and recommended the sub-division of the neighbourhood unit into groups providing for one hundred to three hundred families, the character of each group being determined by the size of dwellings and arrangement of plot plans, both of which would be related to the cost of dwellings, variations in rents, income group requirements and size of families. These residential groups could be related to density zoning so that the most densely settled parts such as blocks of flats would be near public open space and the neighbourhood centre with its communal facilities.

A further example is seen in the plan for Aberdeen where W.D. Chapman and C.F. Riley suggest a subdivision of the neighbourhood unit "into smaller more intimate entities defined as residential units and housing some 1,200 to 1,500 people. These residential units are to be equipped with adequate community provision to meet immediate needs either within the individual unit itself or sharing with an adjoining unit or units" (Chapman and Riley, 1952, p.53).

The Royal Institute of British Architects have followed the same line of thought and suggested smaller groups,

but they specified that there should be about two hundred people in a unit with five of these units about a centre catering for daily needs and with a day care centre for pre-school children, five of these larger groups forming a neighbourhood of 5,000 people and serving a school, a community centre, offices and shops. Eight neighbourhood units were to constitute a borough centre, and the hierarchy was continued further.

This big variation in the range of figures considered as suitable for the optimum population is partly because of the differing bases of calculations, but also because the ideas of what constitutes an ideal community are highly subjective. There is perhaps no very simple pattern with neighbourhood units of uniform size, in an ideal situation. The optimum size is much more likely to vary from one area to another.

Density of Population

Because of the care needed when interpreting density statistics the definitions given for various types of density by Abercrombie in the Greater London Plan will be followed where possible.*

A strong case can be made for varying densities of population in any one neighbourhood because this can give aesthetic, social, economic and political effects. For example, peak densities near a particular facility can emphasize its importance and its development as a focal point. As most of the New Towns have followed this policy

* "'Net' density is the average number of persons per acre of the housing area, which comprises the curtilages of the dwellings (with house, gardens, and open space between flats), access or internal roads, and half the main roads up to a maximum of 20 feet where these give access to residential property. 'Gross' density is the average number of persons per acre of the whole neighbourhood unit, and includes, as well as the housing area referred to above, land required for open space calculated at 4 or 7 acres per 1,000 of the population, the space occupied by primary schools, shops, offices and other business premises, community buildings including churches, public buildings, local service industries or workshops, parking places and garage compounds." (Abercrombie, 1944, p.32.)

of varying densities, even average net densities can be misleading. Whereas an overall low density might result in a restricted range of opportunities and a restricted number of facilities conveniently placed and accessible on foot, pockets of low density may not cause the same limitations nor the additional need of transport to other centres. Conversely an overall high density might result in too much pressure on facilities while small areas with high densities would not cause inconvenience.

The Dudley Report recommended an average density of 12 houses per acre, a number that had been suggested in 1918 by Raymond Unwin, and adopted by legislation for public housing. This density was to be averaged over units not exceeding five acres. When a single density like this is stipulated it makes it difficult to take into account social changes such as changes in the average size of family and consequently the actual population density. For example, during the last fifty years the average family size in Great Britain in areas representing main occupations and income groups has decreased from nearly five to about 3.3 persons, hence the average population density has been lowered. A change in the standard of living and a rise in real income may either make a larger house and garden desirable as well as space for a garage or/and parking, or may reduce the living area required by a family with increased mobility. Thus since space demands of society alter with changes in family composition, earnings, habits, the school leaving age, television watching and increasing leisure time, flexibility in the design and density of residential areas is necessary.

The Housing Manual 1944 prescribed a minimum area of just over 48 acres per 1,000 population giving a net residential density of 30 persons per acre in open development (482 acres per 10,000 people) (Ministry of Health and Ministry of Works, 1944, p.91), but the Reith Committee felt that if a "balanced" population with a proportion of larger houses were taken into consideration the density would be less than 25 persons per acre, that is, less than 12 persons per acre over the built-up

area (or 83 acres per thousand people). On the basis of the New Towns' Report, Robin Best showed that provisions for residential, industrial, educational and open space requirements amounted to 65 acres per thousand people as an over-all town density in the preliminary allocation for residential neighbourhoods giving an average of 12 persons per acre by the time all topographical variations had been accounted for, and with residual uses like local shops, churches, public buildings and roads 75 acres per thousand people should be allowed. Further residual uses took it to 83 acres per thousand people for the total urban area.

Best also questioned the trend towards increasing densities in the New Towns while densities are being reduced in the large towns and wondered if the New Towns' densities are not too high, bearing in mind the growing emphasis on spacious living conditions (Best, 1964, p.28-37).

Recently a number of writers have tried to illustrate that population densities (either gross or net) are subjective and Wyndham Thomas, in the foreword of Best's "Land for New Towns" wrote, "...urbanity is a function of the arrangement of structures and spaces, not of high density. But first must come a genuine respect for people's wishes and for ordinary families' needs for space, comfort, convenience, privacy and communality in and around the home". He believed that with the impact of increasing prosperity, leisure, mobility and traffic 50 persons (15 dwellings) per acre is a tolerable maximum and allows for one car per family, play areas, gardens, and the segregation of pedestrians and vehicles (Best, 1964, foreword).

Building density, as opposed to population density, is often considered as the most consistent index of urbanity, so that a mixture of building densities is more likely to give the diversity that is considered the essence of a town, than varied population densities. Varied building densities can also more easily keep within the minimum standards laid down for light, privacy, and air space and at the same time be co-ordinated with a variety of population densities.

Ruth Glass decried the manner in which many people associate high densities with bad living conditions and low densities with good living conditions. She stressed that low residential densities were not the cure for all urban ills and referred to areas of high social value and prestige in areas of both high and low densities (Glass, 1953). Apart from that, it is recognized that some people find a sense of security in a densely settled block while others feel safer in a more secluded area.

Densities used in the New Towns were criticized in the Architectural Review. If 'urbanity' has as one of its chief attributes, a sense of being part of a built-up community, it was suggested that no-one standing in a typical neighbourhood of a New Town with its "desert of grass verges and concrete roadways" would feel this was an urban environment (Richards, 1953). Many descriptions of British New Towns also make reference to the "prairie planning" that typifies them (Cullen, 1953).

This, however, referred not only to density, either of population or buildings, but also focused attention on the distribution of open space; and although gross residential densities must be taken into account, the open space characteristics of an area including its location, fragmentation and extent are likely to have significance from social, aesthetic and economic points of view. Most plans for town development specify certain open space standards. For example, Abercrombie's residential densities included open space standards within the neighbourhood or within a quarter of a mile of its boundaries providing that it was not allocated to another neighbourhood. This included the primary school playing field and took into account the distance from the open countryside and other open space. It seems usual to find that the open space standards actually adopted are more stringent than the recommendations.

The urbanity of an area is partly dependent on the relationship of open spaces to the built-up areas. G. Brooke Taylor followed Lewis Mumford in the belief that English New Towns are too open and windswept and he made

the following criticisms: that the fragmentation of built-up areas gives the impression of much open land, and that this could be avoided by placing open spaces in peripheral areas; that school building should be adjacent to other buildings; that small open areas at street junctions and elsewhere are unnecessary decorative elements; that a sense of enclosure is lost where there is unrelated building of terraced and semi-detached houses. He blamed this fragmentation of building for causing a dispersal of people and consequent reduction in convenience and social cohesion. His recommendation was that all buildings should be concentrated so that there was a minimum of open space around the buildings and in squares, avenues, or closes, the playing fields and other open spaces being situated so that they were not visually part of the design (Taylor, 1958). Mumford has suggested something along the lines of an Italian piazza, that is, an enclosed open space which encouraged less segregation of children and adults during leisure time (Mumford, 1954).

Planners are therefore forced to make subjective judgments regarding the relative value or desirability of scattered open spaces compared with a concentration of open space as described above, with higher net residential densities but perhaps with similar gross residential densities. Again it is dependent on what is considered the function and value of open spaces and whether they are to serve as focal points, or to be concentrated together for economic reasons, or to be peripheral in order to keep noise and activity away from the residences, or to be scattered so that there is open space as near as possible to the dwellings.

The value of diverse densities was described concisely by Edwin Lutyens and Patrick Abercrombie in their plan for Kingston-Upon-Hull. "The variation in density permits housing development sufficiently wide in range to meet the needs of all sections of society and aid the planner in overcoming that monotony found hitherto in large estates with only one class of building (Lutyens and Abercrombie, 1945, p.59).

CHAPTER IV

COMMUNICATIONS AND THE NEIGHBOURHOOD UNIT

Because distance and time play such an important part in determining the size, shape and functioning of an area, the road and footpath systems are important. These must be considered from two points of view:

- (a) the extent to which communications (routes and transport) will influence people's movements;
- (b) the extent to which the movements of the people will determine whether a neighbourhood unit becomes a neighbourhood.

The boundaries of the neighbourhood unit, according to Perry were to have been arterial roads, and this has subsequently been criticized for its over-emphasis on limited access highways. Whether this is justified or not Perry made it quite clear that the neighbourhood unit is the inevitable result of the automobile age, and its design is to ensure that children could follow a safe route to school. Furthermore the neighbourhood unit concept has been accepted primarily because it is regarded as a method of solving traffic problems. The main advantages of the plan have been to facilitate the movement of through traffic (that is, traffic moving beyond the immediate locality of its point of origin), by discouraging it from entering the neighbourhood unit; and at the same time, to reduce the amount of traffic within the residential areas by keeping them almost entirely for local traffic; and to reduce the cost of road construction by limiting heavy pavements to the main routes.

Radburn, planned by Clarence Stein, had its first homes occupied in 1929 as part of a plan to replace some of New York's slums, and like so many New Towns its plan was influenced by Ebenezer Howard and his book "Garden Cities of To-morrow". The aim of the town was to enable people to live peacefully with and in spite of the automobile. Because neither a Green Belt nor industry could be included Radburn took on the form of a suburb from which workers commuted to New York. Although never completed because of the depression, the plan has had much influence on British

towns. The main forms of transport within these New Towns is limited to private vehicles, public transport (mainly buses), and on foot or bicycle. The Buchanan Report comments on the way that the growth in car ownership has been underestimated in most of the British New Towns, thus proving their designs inadequate.

ROAD PATTERNS

(a) Intra-neighbourhood

The main aim has been to provide transport to various neighbourhood facilities from the houses, while ensuring the safety of the pedestrians. So, like Radburn, this has led in many New Towns to the segregation of road transport and pedestrians. There has also been an effort to eliminate cross-roads where possible, keeping intersections within thirty degrees of a right angle, in order to ensure good visibility, and to restrict speed, but to minimise delay and the noise of traffic.

The pattern is partly dependent on whether there are one or several foci, but in general the following types of road patterns can be distinguished in the neighbourhood units.

(1) Grid pattern where the streets are either of equal width or part of a hierarchy of two or three differing widths, with roads crossing at right angles so there are certain traffic hazards. The regular pattern is simple to follow but the number of roads leading directly to the centre is limited. A hierarchy of roads makes it somewhat easier to focus attention on the centre. A combination of grid-iron and diagonal streets can increase the ease of movement to the centre of the neighbourhood but dangerous intersections are not easily avoided. The resulting long, straight roads tend to encourage speeding, and if parallel to the prevailing wind they can even cause discomfort. Variations in topography can also cause inconvenience and inefficiency in road construction if a strictly regular pattern is maintained.

planning and the term "Radburn layout" has been adopted to describe neighbourhood units that have a similar road pattern. The main features of the plan included a "super-block" extending over 30-50 acres instead of the narrow rectangular block typical of towns built on grid patterns; a hierarchy of specialized roads built for single uses such as service lanes, access roads to buildings and parking spaces for visitors, secondary collector roads around the superblocks, main roads linking the various superblocks, neighbourhoods and districts, and finally expressways linking places lying beyond the town; a park acting as a backbone to the neighbourhood as well as large open areas within the superblocks linked together to form a continuous open space (Stein, 1951). This was therefore one of the early attempts to segregate pedestrians and vehicular traffic in a planned community.

More recently, in 1963, the Buchanan Report has noted the relation of traffic to "environmental areas" (that is, residential neighbourhoods, industrial areas, the town centre). It described the way that in the New Towns these areas are normally bounded by primary roads, so that only traffic having business in the areas need enter them, and so that it is difficult for drivers to make shortcuts through them. This Report recommended that the Radburn layout should be planned to make the housing areas free from traffic while still allowing for one car per household and parking space in addition. By building environmental areas, traffic engineers find that transport planning is simplified because simpler movement patterns are possible for the longer journeys as the traffic can be concentrated on clearly defined networks (Buchanan Report, 1963).

Because this system has been followed to a certain extent, it is simpler to discuss road communications in two sections, viz. (a) Intra-neighbourhood, (b) Extra-neighbourhood, although they cannot be entirely separated. Because rail passenger transport is of limited significance and has had little effect on the spatial distribution of homes or service areas in the Scottish New Towns, reference to it will be made in the discussion of the individual

towns. The main forms of transport within these New Towns is limited to private vehicles, public transport (mainly buses), and on foot or bicycle. The Buchanan Report comments on the way that the growth in car ownership has been underestimated in most of the British New Towns, thus proving their designs inadequate.

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(1) Basically, this road pattern is more suited to a neighbourhood unit with several focal points and encourages a more even distribution of population and facilities. It is most easily established in a square or rectangular unit. The roads may be placed either horizontally and vertically, or diagonally, so if the distance to the centre from the remotest house is half a mile the usual grid-iron pattern will cover 0.25 square miles while the diagonal grid will cover 0.5 square miles.

(2) Irregular pattern, sometimes described as a medieval pattern, is more like that illustrated by Perry, with a mixture of winding and straight streets, market places and squares. It is easier to make the plan less monotonous and aesthetically attractive, but not necessarily practicable for present-day mobility. Such a road pattern, if constructed as an open type of development, can help to control traffic. Provided that intersections are carefully placed and the width of the road is adequate, an irregular pattern can fit in with the topographic features and provide interest in the neighbourhood.

Its main disadvantage is that it can cause a considerable amount of wasted space if not carefully planned because plots and open spaces adjacent to roads are irregularly shaped and more difficult to design, and thus become uneconomical. Although aesthetically desirable it almost inevitably adds unnecessary length to the roads.

(3) A system of radial and circumferential roads from the neighbourhood centre draws attention to the centre, so is satisfactory if this is the major focus. It is more difficult to use a pattern like this if there are several foci. The inclusion of circumferential roads permits motorists to avoid the centre although the most direct route from one side of the neighbourhood unit to the other will normally be through the centre, thus inviting congestion in that area at peak times. The roads need not be absolutely straight nor uniformly spaced although this makes easier a more even distribution of population. Such a pattern seems more appropriate to a unit approaching a circular shape.

(4) Spinal pattern with a main road and staggered intersections leading from it. This concentrates the traffic on a few roads, particularly if the tributary roads lead to culs-de-sac. Most of the residential areas can then be kept reasonably free from traffic and have the same effect as the Radburn layout.

Because the orientation of people in a residential area is likely to be influenced by the road pattern, this is of significance in neighbourhood planning from both physical and social points of view.

(b) Extra-neighbourhood

Just as the road pattern within a neighbourhood unit is important, so is the relation of the road system to areas beyond the neighbourhood unit, that is, to other neighbourhood units, to other towns, to the town centre and to industrial areas and places of work. Frequency of contact with an adjacent neighbourhood may be influenced by the directness of the route between the two units. If the journey involves going on to an arterial routeway it will not be as direct, as fast or as safe as the use of an underpass or overpass. Similarly the directness and distance to the town centre or another town or residential area may influence the number of journeys made away from the neighbourhood unit.

Whereas the intra-neighbourhood road pattern may be related to the shape of the neighbourhood unit, the extra-neighbourhood road pattern can help to determine the shape of the unit. For example, Sunnyside Gardens (Long Island) designed by Stein and Wright is a unit confined by a major grid-iron pattern. The major arteries of the town can also help to determine the relationship between individual units, and this is important for giving a sense of unity to the town. Such roads may act as a common link or they may act as a barrier. Assuming for the moment that they act as a link, contacts with adjacent neighbourhoods are likely to be greater than with units that are further away (Fig. 4.1).

Hence a town centre may be at the centre of a system of radial roads and be encircled by a number of neighbourhood units. In this simple design any one unit is adjacent to two other units and the town centre. An outer ring of units would add a third adjacent unit. With such a road pattern the town centre is likely to provide a unifying factor because of its proximity to a large number of units. 0

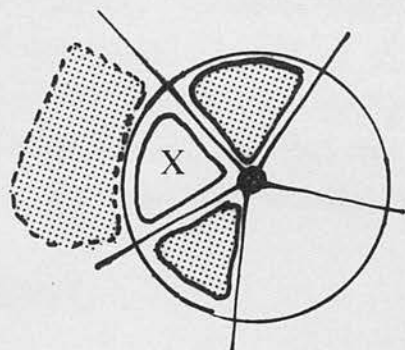
A grid system of roads endows the neighbourhood unit with a rectangular shape and is simple to plan on land which has little variation in its relief. Any one neighbourhood unit may be adjacent to four others but the town centre may not provide an important focal point.

A linear pattern with units spread along the communication spine enables any one unit to lie adjacent to two others. If the town centre is located along the same spine all units will lie on a direct route to the centre but only two units will be adjacent to it. This pattern permits economy in road building although sprawl could become a danger with the addition of too many units. Although it may achieve an efficient transport system the elongated pattern may not help unity in social or economic aspects of the town's development. At the same time though, it may force greater cohesion within individual neighbourhood units.

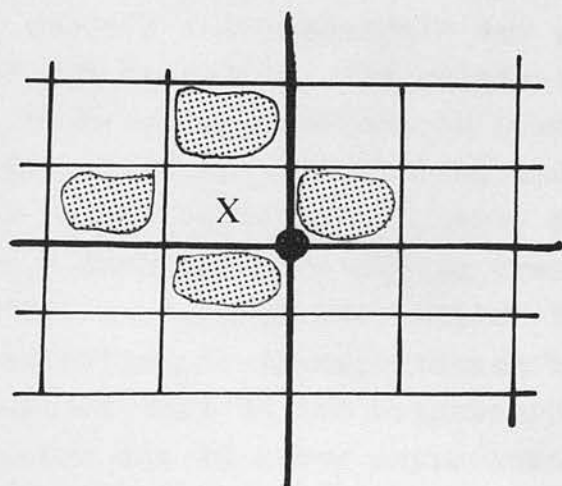
A more irregular major road system makes the location of neighbourhood units appear more haphazard and their shape less regular. Again the emphasis might result in cohesiveness of the individual neighbourhoods rather than the whole town.

It appears as if the location and accessibility of the town centre plays an influential part not only in the use made of the town centre but also with the contacts made with other places outwith the neighbourhood unit. Attractive nearby towns may prove a greater magnet especially when a free flow of traffic is permitted by a well laid out major road system. Thus, although arterial roads may emphasize the identity of neighbourhood units from the point of view of location, they can help to break up local attachment because of the relative simplicity of getting to the city centre or beyond the town.

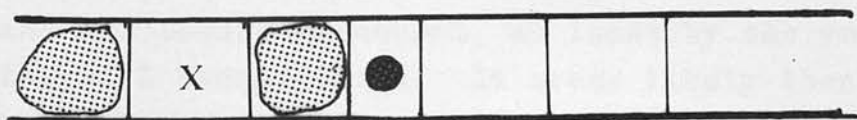
Simplified diagrams to illustrate units sharing common arterial boundary roads with a specified unit (X)



Simple Radial Pattern - (two or three adjacent neighbourhood units possible)



Grid Pattern - (four adjacent neighbourhood units possible)



Linear Pattern - (two adjacent neighbourhood units possible)



town centre



adjacent neighbourhood units

Fig. 4.1

The significance of the main roads leading to the town's focal point has been mentioned several times; but the Buchanan Report has recommended a diffusion of main functions in order to avoid traffic pressure so that civic buildings, the main shopping precinct and facilities for entertainment might be grouped separately, and a large number of relatively small industrial areas might be located at key points. This could affect the neighbourhood unit in one of two ways. People might gain a greater knowledge and interest in various parts of the town; or there may develop a lack of unity within the town. This overall lack of unity may even stimulate a sense of community and more interest in the individual neighbourhood units.

PUBLIC TRANSPORT

As with all systems of transport, the pattern is determined by the relative efficiency and convenience of alternative systems for passengers and goods, the economics of the operation, the maintenance of transport facilities, engineering problems in roads, bridges and vehicles. Dispersal of central land uses as suggested in the Buchanan Report would particularly emphasize the necessity of a comprehensive public transport system. Until recently, in many of the British New Towns there has been a concentration on transportation by local buses from the neighbourhood unit to the neighbourhood centre and the town centre, but not to other environmental zones of the town.

To be of value in an urban community the public transport system needs to be efficient and convenient because even with rising standards of living and more cars per family a demand for public transport, at least by the young and the old, will always exist. It seems likely then, that the public transport system will have some influence on the use of facilities in the town both within and outwith the neighbourhood unit, hence the provision for this must be considered in the town plan. Not only do routes need to be suggested, but the type of pavement that will withstand

heavy vehicles and the width of roads that will allow the location of bus stops within a certain distance of the residential blocks, must be planned.

Public transport can play an important part in limiting the social isolation of any neighbourhood unit. In Runcorn-Redditch a figure eight road for buses only, running through the centre of all the neighbourhoods and thus linking them together has been envisaged as a method of integrating neighbourhood units with the amenities offered in other parts of the town.

Whether transport is by public or private means the speed, distance, cost, hours of operation and frequency of journeys will partially determine the area over which many people will search for interests and social contacts beyond their immediate neighbourhood. One may even argue that an efficient public transport system eliminates the desirability of planning neighbourhood units.

FOOTPATHS

A certain amount of criticism of the New Towns has come about because of the belief that they have been built primarily to serve the motorist, with insufficient thought given to the safety of the pedestrian. However motorized the age may be, the laws of the country do not permit anyone under the age of seventeen years to drive a motor vehicle, and at the other end of the scale many people over a certain age no longer have the physical alertness or the desire or the need or sufficient income to drive cars. In addition there are many who choose to walk. Many of the less mobile have their interests centred locally either around the home or within walking distance of the home, and it is for these people as well as for the motorist that provision must be made. Modern planning policy therefore considers the segregation of pedestrian and vehicular traffic for reasons of safety and convenience. Such segregation involves the construction of underpasses and footbridges, but it seems that unless these are as direct as possible pedestrians will take shorter routes. The

Radburn layout advocated direct routes and enabled people within the unit to walk via the linked open spaces from one end of the unit to the other. Now planners consider the pedestrians who want to walk from one neighbourhood unit to another as well.

The Mark 2 type of New Town, for example, Cumbernauld, was planned without neighbourhood units, but with a more compact form of settlement, so that walking as far as the town centre was practicable in one direction, and as far as the open space surrounding the built-up area at the town's periphery in the other.

The provision of pedestrian routes is desirable whether or not the towns are planned with neighbourhood units, but within a neighbourhood unit any pedestrian routes will ideally focus on the centre in the same way as roads do, and if maximum use is to be made of the footpaths they need to be direct and interesting.

CHAPTER V

SELF-CONTAINMENT AND SOCIAL BALANCE

IN THE NEIGHBOURHOOD UNIT

SELF-CONTAINMENT

Until fairly recently there was general agreement that the policy of a self-contained neighbourhood should be adhered to. In "Garden Cities of To-morrow" Ebenezer Howard thought each ward or one-sixth of the city (with approximately five thousand people) should be in some sense a complete town by itself, with its own schools, churches, and gardens (Howard, 1946).

Clarence Perry also thought a neighbourhood unit should be self-contained except for work places and services that reach a city-wide clientele. Characteristic of many recent plans in Great Britain and the U.S.A. is the omission of work places from residential zones and provision of separate

industrial or business zones in the plan, so self-sufficiency of the unit refers to amenities and facilities providing day-to-day needs. A.J. Brown and H.M. Sherrard when referring to Australia stated that modern light industries could be set up in spacious grounds in residential areas without offence or prejudicing living conditions (Brown and Sherrard, 1951), while the authors of "Communitas" have suggested that houses and factories should be united around city squares (Goodman and Goodman, 1947, p.92), and the inclusion of light industries within residential zones is a feature of new communities in Denmark. Those who advocate this mixture of land uses, usually believe it is undesirable because of the inconvenience of travelling and communications, to have all business in one area, all industries in another, and all residences in a third. With houses reasonably close to work places the time and cost of travel to work should be reduced if the workers live near their own work. However, account must be taken of the actual space involved, the relative location of such industries and the consequent effect on the lives of the residents and communications in such areas.

The Reith Committee suggested that the New Towns should be self-contained and balanced, but from the point of view of neighbourhoods, the self-containment was to be such that the inhabitants should not be more conscious of the neighbourhood unit than of the town as a whole. In the Circular on "Movement of Population to New and Expanded Towns", 1953, it was stated as a policy that the New and Expanded Towns should develop as communities in which the inhabitants would find work as well as homes, and in this way it was believed that self-containment could be more readily achieved (Ministry of Housing and Local Government, 1953). Major-General A.C. Duff regarded the embodiment of ideas of self-containment in the New Towns as one of the basic differences between New Town development and the housing estates and city suburbs in the rest of the country (Duff, 1961, p.61).

When referring to the New Towns J.H. Nicholson reminded his readers that the New Towns "should be placed where

visits to a large town would be reasonably easy, yet not so near that the principle of 'self-containment', which was basic to the conception of a New Town, would be endangered, or they might become dormitory areas like many of the housing estates" (Nicholson, 1961, p.34-5).

Although there is obviously a difference between self-containment of a town and self-containment of a neighbourhood unit, several features are common to both, so it is worth considering these, but particularly in relation to the neighbourhood unit.

In a neighbourhood unit its size is often dictated by walking distances. Such a limitation has an effect on other features. Leo Kuper gave an example where the shopping areas were located within a quarter of a mile of each house to satisfy the criteria of time and effort, but this restriction limited the range of goods and services available at the shopping centre, and thus eliminated the chance of self-containment.

Reginald Isaacs who has been a critic of neighbourhood units in the U.S.A. mapped an area of Chicago covered by a typical family's activities, and on finding that they varied up to twenty miles from home asked whether a neighbourhood unit could possibly cater for the activities of a typical family, and therefore be self-contained (Isaacs, 1948). Although certain facilities such as the clinic, library, cinema, church, park, playground and local shops might provide opportunities for face-to-face contacts these are not necessarily enough to achieve self-containment.

In a report of a symposium chaired by R.H. Sheppard at the Royal Institute of British Architects in 1946 it was envisaged that a neighbourhood unit contained between 5,000 and 10,000 people and should be "as far as possible self-contained in respect of work, leisure, and social provisions of all kinds; ... and separated from other units ..." (Royal Institute of British Architects, 1946).

Some have criticized neighbourhood units particularly because of the effect of self-containment on town centre use but Lewis Mumford thought that "the notion that the existence of a neighbourhood unit presents an obstacle to

the wider use of the city does not bear examination; rather it is only by the decentralisation of as many activities as possible into local units that the centralised facilities can be kept from becoming congested and ultimately unusable" (Mumford, 1954).

Three points of view of self-containment need to be explained. The first is that to be self-contained a unit must have a complete range of facilities that the population can support. The main arguments against this is based on the fact that because the "thresholds"* of different facilities vary so much no half dozen would be supported by the same number of people. Also to be considered is the value of small civic centres scattered throughout the town with the public welfare being served by branch offices, libraries, etc., compared with the value of one large civic centre near the town centre providing a focal point of the town itself.

The second view is that self-containment involves the provision of a full environment for a complete community including facilities for the requirements and the lives of the people. An objection to this is based on the differing nature of the requirements of each age group. These needs are made even more complex if the nature of a heterogeneous adult population are taken into account.

Finally there is the idea that a self-contained community is one where employment is available for all. Because industrial zones are chiefly apart from residential units in the Scottish New Towns self-containment must be considered from the point of view of whether a sufficient number and range of employment is available within the town. J.B. Cullingworth suggested that this principle of self-containment was necessary if the New Towns were to succeed in their purpose of reducing congestion, but self-containment implies that people need to be selected on the basis of employment rather than housing needs. A conflict has resulted between the ideals relating to the development of self-contained and balanced communities and those

* "Threshold" is taken as referring to the minimum number of people required to support a particular facility.

relating to the relief of housing needs (Cullingworth, 1959). An attempt has been made to balance total employment and total housing by allocating houses in the New Towns only to people with work in the town. This should have had the effect of minimising the number of commuters to and from the town, and limiting the likelihood of a town becoming a dormitory. There could not be complete control over those people who accepted offers of employment solely to obtain a house, and as the New Town houses are not tied a person could change his work without vacating his house, or could move from the New Town while continuing to work there. Also there has been the difficulty of controlling the number of employment vacancies.

In England, A.A. Ogilvy studied some census figures to distinguish the numbers of people whose work journeys crossed local boundaries. The balance between the number of jobs and the working population resident in the town gave the potential self-sufficiency of the town (Ogilvy, 1968). A similar study would have some relevance to the study of neighbourhood units. If most of the people work within the town it is possible more time will be spent in and near the home because less time is spent on commuting. However as mobility increases, it becomes easier to move further than previously to work, so from the point of employment in the New Towns the degree of self-containment is likely to decrease.

In the study referred to above, Ogilvy expected to find some degree of cross-movement where towns are located close together. He found that this was less a return to London than a movement to neighbouring towns within a radius of about ten miles. It was the number of opportunities provided within this distance that limited the achievement of self-sufficiency. According to Ogilvy sociologists have developed a prediction hypothesis which states that the influence of jobs in other areas is diminished by the square of the intervening distance. The influence of Glasgow and Edinburgh could be significant in this respect.

The following quotation from the work of Sir George Clark takes self-containment from the broadest point of

view, but it might be applied to neighbourhood units in the same way as to cities.

"In our world, every city is a nodal point in a complicated network of rapid and world-wide material and spiritual communication. It is far from being a self-contained community which can shut its gates at nightfall and forget the surrounding world. For the smallest urban grouping gives and receives uninterruptedly by road, rail, water and airborne traffic, by telegraph, telephone, teleprinter, radio and television." (Clark, 1955.)

Accepting that complete self-containment is impossible room is still left for a degree of self-containment. The measurement of this will depend on the definition of the term. Although it has been considered as a desirable attribute of neighbourhood units by some sociologists who believe that it will aid the cohesiveness of society, self-containment is not an essential characteristic of a neighbourhood.

BALANCE

Social Balance

One hundred years ago J.S. Buckingham, in his plan for New Victoria, advocated a socially balanced community in an entirely new town "peopled by an adequate number of inhabitants with such due proportions between the agricultural and manufacturing classes, and between possessors of capital, skill and labour, as to produce ... the highest degree of abundance in every necessity of life, and many luxuries, united with the lightest amount of labour and care, and the highest degree of health, contentment, morality, and enjoyment, yet seen in any existing community ..." (Buckingham, 1849, p.141).

The Reith Committee recommended that the New Towns should "be self-contained and balanced communities for working and living". Although the word "balance" is nowhere defined, the Report did suggest that it "can be attained by giving opportunity for many sorts of employment which will attract men and women up to a high-income

level", and that all social classes should be represented in it. The Report went on to suggest that from the beginning the composition of population of a New Town should include people in many walks of life such as "professional men and women, writers, artists, retired people", so that all could play their parts in the life of the town including activities of a social, political, artistic and recreational nature. "If the community is to be truly balanced, so long as social classes exist all must be represented in it. A contribution is needed from every type and class of person; the community will be the poorer if all are not there, able and willing to make it" (New Towns Committee, 1946).

Clearly then the 'balanced community' in the Report refers to a heterogeneous community although the degree of heterogeneity and proportions of different social classes are not indicated, and unless there are standards of reference there is no way of determining when a balanced composition has been attained. The standards taken for comparison could be the statistics of the demographic, social or industrial structure of the country, or region, or towns of similar size or function.

A.E. Smailes made the assumption that balance in an urban community would have three primary manifestations:

"(1) A representative social structure, with a 'normal' ratio between manual and black-coat male workers as its fundamental basis ...

(2) A combination of basic industries such as to provide economic stability ...

(3) Adequate outlets for full employment of the normal complements of different classes (according to sex, age, and skill) of workers in the community, and for different types of capacity."

This therefore assumed a representative economic and social structure, that is, "one which conforms to that of the country as a whole" (Smailes, 1945). If this were to be the case there would need to be approximately twenty per cent middle class dwellings and eighty per cent working class. Balance could also mean equal quantities but it

is unlikely that any serious planner or sociologist envisages equal numbers of working class and middle class residents in a neighbourhood unit or a town, although equality in the balance of power might have been considered.

The acceptance of a socially balanced neighbourhood unit has not been universal, particularly by those who regard the very development of a neighbourhood as relying to a considerable extent on the homogeneity of the community. One of the more marked differences existing between the planned neighbourhood unit, and the city neighbourhood that has not been planned as a complete entity, is in the mixture of socio-economic groups. In the city, social and occupational differentiation is often congruent with territorial differentiation so that people with similar habits, occupations and origins are found settled together. Although the social unity of certain areas has been attributed to similarity in economic level as well as to physical separateness no proof has shown that lack of homogeneity leads to a lack of sense of community.

S.E. Rasmussen gave industrialism and specialisation of labour as reasons for towns becoming divided into uniform sections and said that residents became "prejudiced and spiritually crippled", especially where "mass-produced standardised housing ... offers little more than shelter to the poor". In areas that are densely populated, "the physically weak, the old and worn-out, the mentally and morally degenerate, are herded together, and in this environment their children grow up" (Rasmussen, 1957).

One of the earlier experiments of mixing classes was in London's East End where the Christian Settlements had well-educated people living among the labouring population. Hampstead Garden Suburb was also created to mix housing types in a residential suburb. During and after the Second World War an abnormally heightened community feeling resulting from common danger and hardship encouraged a considerable social mixing of people and the assumption was made that such mixing would continue. A certain amount of economic and social equality had been forced on people

through rationing, full employment and state welfare services but at present there is little to instil the same sense of community or encourage mixing.

The emphasis on socio-economic and industrial balance has also been an attempt to avoid the one-class type of settlement that appeared in earlier housing estates. Ruth Glass is one sociologist who does not believe that administrative decisions alone will cause the spatial aspects of class structure to disappear, and thinks that it will involve greater democratization as well as considerable industrial and social mobility to raise the standards of living.

Thus it seems that rather than to promote diversity in the population, the aim of establishing a balanced population is to make it classless.

One method used to promote social balance in the earlier New Towns has been the mixing of "managerial" types of houses with others. The National Council of Social Service advocated balance by mixing the houses and wrote, "In the interest of social variety, and in order to enable families of different backgrounds and experiences to continue to mix in peacetime as they are now mixing during war, each neighbourhood unit should be socially balanced, containing houses of different types and sizes inhabited by families belonging to different income groups" (National Council of Social Service, 1943, p.7-9). The houses of different income groups and of different sizes have been scattered haphazardly throughout the residential areas. It appears, according to J.H. Nicholson that where there has been no alternative of such houses built in groups, this method has failed. Apparently placing larger owner-occupied houses adjacent to smaller rented houses was not popular, but this problem might be overcome by placing people of different classes so that although they do not live next door to each other, they still share the same facilities and presumably have a common community interest.

Lloyd Rodwin has explained how low income tenants cannot move to a New Town as housing costs are too high and gives this as the reason for Letchworth becoming a

"middle class" town. He thought that even when an effort was made to build different types to correspond to the needs of major income groups there was a tendency to serve the middle income groups in particular, and in this group he included the key workers and skilled construction workers who moved to the New Towns before those on housing lists (Rodwin, 1958). Certainly some kind of economic filter exists because the higher rents and the cost of moving leave the poorest people behind. Even the provision of terraced houses, flats, detached and semi-detached dwellings for sale or letting and land for private building is unlikely to cater for those at the extreme ends of the socio-economic scale.

The government policy regarding the proportions of houses that are rented and owner-occupied has varied from time to time and from place to place. By building towns suitable for all income groups the majority should be represented. In Scotland, a graduated rent scheme allows poorer people to live in the same conditions as those who are better off.

Apart from housing, another method of achieving a balanced community is by controlling the occupational structure. The control of the range and type of industry coming to a New Town is one method, provided these employ the New Town residents. Neighbourhoods have been described as a conscious effort to put the worthwhile features of the traditional village into an urban setting and one of these mentioned by L.E. White was the "socially balanced community with a diversity of occupations and income levels" (White, 1950, p.22). Observers of rural depopulation blame it on the lack of diversity and failure of an economy with a single emphasis. These are contradictory arguments.

Whether a town has a balanced economy or not depends partly on the nature of the applicants, the selection procedures used and the housing policy. Tenants on housing lists are not necessarily a representative sample of the different social and income groups needed for the balanced population. Indeed, if a New Town has no long

waiting list for houses the Housing Manager may feel bound to accept almost anyone who fulfils the conditions that are stipulated for the selection of new tenants.

The Reith Committee felt that one way of helping to prevent imbalance was to avoid "the transfer of large batches of people from specific redevelopment areas to a specific New Town ... if large numbers have to be dispersed a mass migration to another single area is undesirable". "New Towns should be free to accept workers of all types wherever they come from." In addition special encouragement was to be given to firms employing workers of all types.

If a person had employment in a New Town he was eligible for a house, so as B.J. Heraud observed, "The scheme which emerged was in fact a system of industrial or labour selection". (Heraud, 1966).

The Ministry of Town and Country Planning Circular on "Movement of Population to New and Expanded Towns, 6.5.53", illustrates government policy in the matter. "Tenants must be selected with a view to their employment need, and to the opportunities of employment in the reception area, as well as to their housing need" (Ministry of Housing and Local Government, 1953, p.2). The building labour force and key workers were given priority and the balance came through industrial selection schemes. In many British towns approximately half the working population is employed in manufacturing with the remainder in local distributive trades, offices, and public utilities so this would probably be the eventual proportion aimed at in the New Towns, although the actual proportions would be expected to vary during the period of the New Towns' development. However, apart from the building workers, the needs of the industries in the New Towns have been predominantly for skilled workers while the registered applicants have been mainly unskilled. Even those unskilled workers whose housing needs are greatest and who might have been accepted, have been discouraged by higher rents and costs, so industrial suitability has played a much more important part in the selection of tenants than was foreseen. As far as London was concerned the people who were most needing them (Willmott, 1963).

original plan was to apply industrial selection on the basis of the sector of London in which the firm was situated. If firms moving to the New Towns required additional labour it was obtained from among people on housing lists of local authorities which had overspill agreements with the New Towns. The demarcation of sectors has not been applied in Glasgow but similar methods of selection have been adopted.

The main types of industries to move to British New Towns have been manufacturing and this has required large numbers of factory workers of a similar socio-economic class resulting in a tendency towards one-class towns and one-class neighbourhoods. Additional tertiary industries have been more difficult to attract in the earlier stages of development. Since neighbourhoods are constructed one at a time a considerable proportion of the tenants in any one neighbourhood may have been recruited for a single industry being established in the New Town at the time the houses were ready for occupation. Although this may lead to economic imbalance it can also lead to more intense community feeling and social mixing.

It was made quite clear by Lewis Silkin, former Minister of Town and Country Planning, that the main reason for aiming at a heterogeneous community was to promote social mixing. He said, "I am very concerned, indeed, not merely to get different classes of the community, but to get them actually mixing together ... Unless they do mix, and mix freely, in their leisure and recreation the whole purpose of getting what we called a mixed community disappears" (Silkin, 1948).

This makes the assumption that people want to mix with other classes. Peter Willmott found during his research in Dagenham, a council estate of working class people, that the desire of the people themselves, for social mixing, was slight. Those people who moved away from the estate were mainly the middle class while the working class people seemed happy to live in an environment of their own kind. He also indicated that if the idea of social balance were discarded, more houses could be built for the working class people who were most needing them (Willmott, 1963).

S.E. Rasmussen also considered that most adults prefer to live in a homogeneous neighbourhood because there they can associate with people of their own kind, and the more homogeneous the neighbourhood, the more intense the interaction (Rasmussen, 1957). Another advocate of the homogeneous neighbourhood was Peter Mann who thought that because an urban dweller is forced to constant alertness when "mingling with the motley crowd of heterogeneous population" he wants to be able to relax with others of his own kind in his private life around the home.

Both Peter Mann and Ruth Glass have found that in areas where homogeneity is most marked neighbourhood life has developed spontaneously. Many advantages of a heterogeneous community with people living together in the same neighbourhood have been put forward, but always on the assumption that people will and should live together in this way.

It is expected that such diverse people will become good neighbours and even friends and therefore learn to respect social and cultural differences, but it is also likely that a cool, polite, social climate lacking in consensus and intensity of relations might develop. People with different social conventions, different attitudes to noise and privacy and different opinions about child rearing may become irritated rather than tolerant (Political and Economic Planning, 1949). Neighbours with higher incomes and better education can cause jealousy to the extent that extreme heterogeneity can inhibit community feeling and encourage mutual resentment. Extreme homogeneity may be as bad because, "Those people who differ from the majority are likely to be considered deviants, and may be exposed to social pressure to conform or sentenced to virtual isolation" (Gans, 1961b). There are times when working class and middle class people feel ill at ease in each other's company. As a reaction against one-class housing estates, one-class neighbourhoods have been considered socially, economically and aesthetically undesirable, but fundamental differences regarding social and economic interests are not made easier through living together, and there is no real reason why one-class neighbourhood units or estates should be aesthetically monotonous.

Social balance in neighbourhood units was meant to abolish socio-geographic differentiation and thus prevent the isolation of residents in one area from the rest of society. Rather than stressing the heterogeneity of a unit the same aim might be achieved by doing away with any physical demarcation of neighbourhood boundaries and encouraging social relations between different units through physical linking rather than division.

It seems to be common in New Towns to find that one of the first things newcomers want, is to make friends. This is likely to be a much slower process in a heterogeneous community, especially if it is less stable than a homogeneous unit. People tend to choose their friends on the basis of similarities in backgrounds, values and interests, but Gans thought that if the community is homogeneous the people might become satisfied with friends made among those living nearby and not become involved in activities of the wider community (Gans, 1961b).

It has been hoped that by mixing together, common interests would be found, and would bring people together in respect of common needs and obligations. Perry emphasized the way in which he expected social balance would enable all classes to mix together and therefore aid in finding common interests, and the community centre was meant to have importance in this respect. But Wendell Bell and Maryanne Force have found that in the U.S.A. at least, the most typical kind of association in a neighbourhood is one serving a special interest and deliberately composed of persons occupying similar social status, hence "the associational behaviour of urbanites, regardless of the social type of neighbourhood in which they live, is largely a manifestation of a special interest which they share with other persons of similar status as themselves" (Bell and Force, 1956b).

In Great Britain the middle classes tend to be active in types of associations different from those of the lower classes. For example, the middle classes are more active in voluntary associations, clubs, civic groups, and tenants' organizations, while the organizations with middle class



goals are shunned by the working classes. Proportionately a decrease in associational membership from upper-upper classes to lower-lower classes leaves it playing a much less important part in the lives of the lower classes. There are needs, therefore, to be at least sufficient homogeneity to permit institutions to function and interest groups to reach workable compromises. As long as institutions do not attract a large working class clientèle except among the socially mobile and the children the facilities provided in New Towns do not fulfil their purposes. If this is true it would appear that clubs and societies will not help in the mixing of the balanced community.

Jevons and Madge showed in their study of "Housing Estates" in Bristol that people with different attitudes and interests resented being mixed together and more people left the estates because of a dislike of neighbours than for other reasons, so here again mixing has not occurred through residential proximity or through the use of the same facilities (Jevons and Madge, 1946). In Crawley movement between neighbourhood units within the town, as well as signs of an 'ex-urban' class fringe development, have occurred (Hase et al., 1958, p.20).

Other reasons for establishing a socially balanced community have been expressed by sociologists. By exposing people to different ways of life, class mobility is simpler because the working class family has more opportunity to learn middle class ways. Sociologists studying stratification have found that ideas and values are diffused from one class to the class immediately above or immediately below it rather than between classes that diverge sharply in income, education and other background characteristics, so one can assume that positive effects are only likely to occur under conditions of moderate heterogeneity. Even this mobility demands the income and social skills required for the new way of life, and is difficult enough when desired. Bennett M. Berger, working in California, studied people who moved when the Ford Motor Company moved fifty miles from Richmond to Milpitas. He found that moving to a suburban estate did not have much effect on social,

cultural or political affiliations and that factory workers maintained their working class mode of life despite the fact that they owned houses instead of renting them. They showed little interest in changing their social or cultural behaviour patterns to resemble those of the suburban middle class, or any desire for social promotion (Berger, 1960).

Also, an assumption has been made that middle classes will provide the organizational leadership at the same time as acting as models to inspire the working class to accept middle class standards. Peter Willmott whose work in Dagenham has already been mentioned, considered that the virtual absence of a middle class had something to do with the relative lack of local clubs and organizations. In the survey of a Sheffield estate described in "Neighbourhood and Community" where the majority of the residents were unskilled workers, leadership was regarded as "uppish". There was also an isolation of people in supervisory grades, even when they played no leading roles in the community (Simey, 1954). The National Council of Social Service Survey Group reported in 1943, "Class distinction has been emphasised to an undesirable extent by the segregation of rigidly divided income-groups into separate residential districts ... The consequence of this segregation is that the new municipal estates contain relatively few people with varied experience in social leadership ... Where leaders are lacking it is more than usually difficult to build up community life." Thus there followed the recommendation that all planning schemes after the war should have neighbourhood units containing a socially balanced population (National Council of Social Service, 1943, p.3). L.E. White also considered, "Lack of leadership was a marked characteristic of the 'one-class' estates and was largely responsible for the difficulties experienced in building up community life and activity" (White, 1950, p.13).

A community centre without any leadership will be likely to give little satisfaction and it seems that leadership is necessary for the fuller community life envisaged in urban planning. If the socially balanced population is more likely to provide leaders, this argument

could be put forward as justification for a heterogeneous community, but Ruth Glass thought that provided physical and social facilities are available and local attachments have been made, even the poorest areas will find their own natural leaders.

Social mixing is also meant to benefit the children who under these conditions can learn about the existence of people of various classes, races, and ages, and give them an opportunity to learn to live with them so that they will associate freely with them in later years. Mumford thought that in terms of educating the young and making the institutions of democracy work, the arguments are in favour of a mixed community, and Willmott, again in Dagenham, found that education suffered from uniformity and that the schools in mixed class districts benefited from the enthusiasm and stimulus of middle-class parents and their children. This assumes that children discover other age groups and classes through close contact and that this teaches them how to live with them. It ignores the way many children develop conceptions of society and ability to get along with diverse types from the actions and attitudes of the persons with whom they come into closer continual contact - their parents, playmates and teachers. Parents' attitudes and prohibitions can discourage a child from playing with other children, and experiments have shown that frequently suburban children evaluate others from their parents.

Advocates of neighbourhood units have argued that population groups of the size found in a unit give the best opportunity for training and practice of good citizenship because this is a size where people can organize themselves and advertise their needs and aspirations which can then become the basis of policies. Thus the neighbourhood unit acts as a political unit. Furthermore this is meant to achieve democracy and reduce social and political conflict, but it has been explained that a heterogeneous community can produce tensions and lead to intense political and cultural conflict and therefore may be socially destructive if the parties become irreconcilable. In a homogeneous

different styles of life (Willmott, 1963).

society representation is easier because there is less conflicting body of opinion, but there might at the same time be less incentive to public discussion and less interest in civic affairs. If the findings of Bell and Force apply equally in Great Britain, an imbalance of power in a socially balanced community is likely because persons of high economic status have more memberships and higher frequencies of attendance at meetings than persons of low economic status. Hence, the power through activity of formally organized groups is largely in the hands of men and women of high economic status.

A further aim of a balanced community is to avoid the establishment of social ghettos for the very rich or very poor, especially where rates are the main support of community services. Since rates are not payable to a neighbourhood authority this argument does not apply in the New Towns. As all rates are collected by one authority all people benefit from the rates paid by the wealthier sections of the town.

Social balance also has an effect on the shopping facilities found in a unit. Peter Willmott found that Dagenham might have been able to support a thriving shopping centre with fuller entertainment, cultural and restaurant facilities since it was large enough to justify them, if it had more middle class customers in the area to draw on. In order to achieve the advantages of social balance within a town, but without forcing people to live in heterogeneous neighbourhood units, he suggested that schools, shops other than corner shops, cinemas, restaurants, libraries and so on could be sited between two neighbourhoods of differing social compositions, that is, physically distinct, but homogeneous units of 5,000 to 10,000 people. He claimed that the main purpose of grouping dwellings would not be to create 'community' in mixed class neighbourhoods but to enable 'community' to develop in one-class neighbourhoods which would be linked together through common services. In this way people would be aware of the variety of society and of opportunities open to them without the strain of adapting to, or conflicting with neighbours with different styles of life (Willmott, 1963).

It seems doubtful how many advantages a heterogeneous population in a neighbourhood unit really has, especially as it will not necessarily promote social mixing. Herbert J. Gans concluded that the planner affects social life through decisions about lot size and facility standards that help to determine whether the population of an area will be homogeneous or heterogeneous, rather than the site plan. His explanation was that the planner has only limited influence over social relationships, and that the intensity or quality of relationships depends on the characteristics of the people involved. He considered that these characteristics can only be affected to some small degree by the sizes of subdivisions, facility standards and housing styles determined by the planner (Gans, 1961a).

Finally in connection with socio-economic balance is a quotation from a paper written by T. Burns referring to conclusions reached by research workers in America and Europe. "First, persistence through time, through migration, and through sizeable changes in incomes, of patterns of behaviour, political affiliation, and way of life generally; secondly, the way in which social changes - simple ones like higher real incomes, the suburbanisation of everybody, development of television and tourism - do not necessarily assimilate culturally heterogeneous populations or different social classes or status groups into one amorphous mass society but may generate new cultural movements and groups, shifts and new constraints in social divisions and the restructuring of the status order. In short, the social system and the culture we have is not a kind of iceberg surviving from the ancestral past melting in the sun of rising affluence and eroded by the currents of technological change but something constantly recreated and amended and extended as the institutional expression of the principles by which people order their lives.

And thirdly, by establishing - or reawakening - our appreciations of these two aspects of persistence and change, and trend of urban studies in recent years has sharpened our awareness of the variety and complexity of urban society and of urban living" (Burns, 1968).

This is a further reminder that flexibility in town planning is essential if the work put into New Town development is to be of lasting value.

Age Structure in the Neighbourhood Unit

A further aspect of social balance is that of age structure. When writing of heterogeneity Gans described it as a quality of social life that "adds variety as well as demographic 'balance' to an area and thus enriches the inhabitants' lives. Conversely, homogeneity is said to stultify as well as to deprive people of important social resources, such as the wisdom of the older generation in the suburbs." (Gans, 1961a).

The tendency in the past has been to compare the age structure of a population with that of the country, region or county and describe it as "balanced" if they coincide. "Balanced" has also been defined as "stable" where the birth-rate and death-rate are almost the same, and the rates of immigration approximate the rates of emigration. The use of this index is not possible in New Towns where population increase through migration is the *raison d'être* of a New Town. The age structure has had much more effect on New Town plans than have other population characteristics like ethnic or religious groupings, consequently it has had more consideration given to it.

As internal variations can be found in the structure of population of a town or city, it is necessary to study the age structure of the individual neighbourhood units as well as of the town as a whole. Over all, one can generalize by saying that the more recent the construction of the neighbourhood the more youthful is the population likely to be. This means that statements cannot be made about one neighbourhood from a study of the town as a whole. Local problems caused by age imbalance might well be disguised where such generalizations about the town as a whole, are forced to fit the neighbourhood unit. Also, because of changes in housing policy and the provision recently of special housing, more elderly people are found in the newer neighbourhood units.

As time passes the initial youthful age pyramid resulting from the large number of young married couples among the earliest immigrants is likely to change to a more mature shape and might eventually approximate the regional average, although certain differences might become apparent, depending partly on the mobility of the population. The rate of natural increase which is particularly high at the early stages of the town's development will decrease as the population matures. Age specific fertility levels might be similar to the national averages, but age specific death rates at present are considerably below the national level, perhaps as a result of the healthier environment.

The nature of the initial age structure is entirely due to the ages of any original population resident in an area designated as a New Town, and of the first migrants. Older relatives, and widowed parents of young adults already in the New Towns are now encouraged to live there as well, but because of differences between male and female death-rates there tend to be fewer widowed fathers immigrating. In addition more single people are now being allocated houses.

Jennifer Moss has studied the changing size of household in Crawley with the development of the New Town. In 1952 the average size was 3.33 and by 1959 it had dropped to 3.08 persons. This was related to the size of household on arrival which changed from an average of three to two persons. It is partly explained by the circumstances of that time because the first arrivals came immediately after the war when people were having to wait longer for good housing. They therefore had more children in the family on arrival. Since that time the average age of marriage has decreased and the adults are younger when they apply to migrate (Moss, 1968).

Another feature that influences the structure of the immigrant population is the type of accommodation available. For example, the availability and location of dwellings suitable for elderly people near their relatives will increase applications from that section of the population. The Development Corporations have found that to begin with

the greatest demand, being dependent on the size of the family, has been for two- and three-bedroom houses, and they have built accordingly, but as the people get older and the families grow up and leave them a bigger demand for smaller houses occurs, and unless these are available either the original tenants continue to occupy a three-bedroom house which could otherwise be put to fuller use, or they are forced to move away from the town causing a continued age imbalance. Furthermore provision needs to be made for the young married couples of the next generation if the structure of the population is not to have too big a proportion of older people. Unless this second generation can stay in the town the chance of a balanced age structure eventuating is small.

Employment opportunities in a New Town can also affect the age structure of the population. For example, key workers that move with firms at the beginning of the New Town's establishment tend to be older than the average age of immigrants, while those recruited individually after the initial establishment of the concern tend to be younger. Also, types of employment with a pronounced career structure bring a higher proportion of people over the age of thirty than do other types. It is understandable that younger people are attracted by the employment opportunities in New Towns, rather than the older folk who are already established in their work and less willing to move.

A balanced age structure is desirable as soon as possible, and if the town is planned with neighbourhood units, a balance is desirable there as well. With an age imbalance the planners encounter difficulties in the adequate provision of facilities. The youthful structure in evidence at the beginning means the unit has a preponderance of small children and only a few middle-aged and retired people. A burden on health and midwifery services results, followed immediately by pressure on primary school facilities and later, on secondary school facilities and an over-taxing of resources for teenagers. The effect of neighbourhood planning on school provision for these bulges in the population is obvious. Either temporary buildings

must be constructed to provide for children within the neighbourhood unit or they must be transported to a school in another neighbourhood that is not being affected by the bulge at that time. In a more compact town distances to schools other than the nearest are not so great and consequently attendance at a school in another area is not so inconvenient.

When the children in this bulge leave school there is a sudden demand for work in the town. Under the present system this starts when the children living in the first neighbourhood reach working age, and the demand continues corresponding to the settling of the town. Between twenty and thirty years after the first immigrants settled in the area a further bulge in the birth-rate occurs and the process repeats itself until a balanced age structure is achieved. Unless the facilities for the population are extremely flexible they go through alternate periods of overcrowding or unsatisfied demand, and underuse or neglect. A balanced age structure at the beginning should prove less strain on educational, entertainment and other facilities that are chiefly used by specific age groups.

Age imbalance causes other difficulties. For example, while the population is young few grandparents are available for babysitting, and parents are therefore more often confined to their homes and less able to take the same advantage of opportunities for social contacts with others in the neighbourhood unit or other parts of the town.

Many families also feel the burden of the cost of moving and the men feel they must work overtime in order to furnish the new home and pay the extra expenses involved in moving. Because the men are working late, the wives must remain at home with the young children so neither of them can enter easily into the life of the community.

The initial lack of a middle-aged group who are relatively free from family ties may be regarded as a cause for the lack of leadership for voluntary organisations. Younger people are frequently too busy with their families, or are out at work all day and therefore have little time to devote to such activities.

Provision for the needs of the various age groups is an important aspect of the planner's work. As has already been suggested, not only is the uneven use of the facilities uneconomic, but the more balanced the structure at the beginning, the easier will be the community's development. The mobility of each age group is a significant consideration in planning facilities for the population. The following remarks outline the facilities required and the mobility of each group.

The pre-school child is relatively immobile by himself, hence his needs should be provided for as near the home as possible. If gardens are inadequate small play spaces are needed throughout the neighbourhood unit near the houses so that the children are never far from the supervision of their parents. Apart from this, a pre-school child usually has to accompany his mother on daily trips and although the child may not need his own energy for getting to the shops or clinic, these facilities are preferably within a fairly short walking distance of the home so that pushing prams or long journeys in public transport are kept to a minimum.

School children are more mobile. They can normally be expected to walk a distance of half a mile without hardship, so that homes served by the school should ideally be within a half mile's radius. Likewise facilities for playing field games and 'knocking about' should be within the same distance. Provided no regulations prohibit it, the school playground could serve these purposes. As a school normally serves a population of approximately 3,500 it would be necessary to have three primary schools in a neighbourhood of about 10,000 people. Those who have determined the size of neighbourhood units on the size of the primary school population have suggested that the school should provide a centre of interest for the children and a firm foundation on which to build communal activities. In the larger neighbourhood unit it would mean the development of three foci or sub-foci and therefore not conducive to social cohesion within the whole neighbourhood. Mumford stressed that a neighbourhood unit should be an area within the scope and

interest of a pre-adolescent child such that daily life can have unity and significance to him as a representation of a large social whole (Mumford, 1949). This may be satisfactory if the purpose of planning neighbourhood units is purely for the benefit of the pre-adolescent.

One secondary school is supported by a population of about 10,000 people and normally caters for between nine and ten per cent of the population. Pupils attending the secondary school are usually more mobile than younger people. They can walk further, they often have bicycles and they make more use of public transport. Again it is desirable to have the school within walking distance of every home even if the school does not play such a vital role in the life of the community. If located centrally there is a strong argument for treating this as the centre of communal activities rather than the smaller primary schools. The need for a large amount of open space near the school has caused it to be placed near the periphery of the neighbourhood on many plans. The disadvantage of a large open space in the middle of the neighbourhood is that it increases distances to be travelled to neighbourhood facilities for people who live beyond the school. However, a peripheral location increases travelling for the children on the other side of the neighbourhood unit. From the point of view of economics, scattered open spaces are less desirable so a peripheral position can more easily have the land used for playing fields near the school placed adjacent to other community open spaces. For some people playing fields also detract from the amenity of an area because of noise and the hazards of flying balls. Another view is taken by some elderly people who enjoy the location of a playground nearby because it is lively.

The teenagers constitute one of the most mobile groups of the population because they are more independent, their interests are broader and they travel further. Often they have a spirit of adventure and local activities frequently seem dull simply because they are in familiar places. The town centre is more attractive than the church hall, and many of them appear to spend as little time as possible at

home. Not only do they work outwith the neighbourhood unit during the day, but they actively seek entertainment and interests beyond the local environment. People of this age group in the New Towns are normally living at home, and are not involved with daily or weekly household shopping. The neighbourhood unit appears to have little significance in the lives of this group.

Although young adults may be tied to the local area while their families are growing up, especially if they do not have transport of their own, for the greater part of adulthood a person is mobile. The housewife is preferably within walking distance of shops supplying day-to-day needs and even closer to a supplier of milk, bread and newspapers, perhaps at a corner shop. In neighbourhood planning there is normally a group of shops, frequently at the neighbourhood centre, referred to as the neighbourhood shops. Adults frequently look to the local area for some entertainment and for opportunities to meet others, especially if they are within the less mobile group and the territory over which they can travel with ease is limited. It is this group in particular, who become attached to their local environment and who appreciate the feeling of belonging to an area because of their immobility. For this reason meeting rooms in some neighbourhood units provide a place where women can meet in the afternoon and keep an eye on the young children at the same time.

When there are no young children and home ties are slacker, family mobility is normally greater and there is usually no necessity or particular value in centring activities in one neighbourhood unit. Advantage can normally be taken of entertainment and recreational facilities further afield.

The territory over which older people travel often is normally smaller in extent and outings are usually less frequent. Daily shopping facilities need to be at hand because these people are not so mobile. The neighbourhood unit is likely to have rather more meaning to them if they have kinship ties within the area. Apart from the family certain special interests such as the bowling green, the

Old Age Pensioners' Club or church activities occupy some of their time. The feeling of belonging to specific groups is more important than the feeling of belonging to an area.

If, as is claimed, the neighbourhood unit is based on the needs of the family, it must take all these differing needs into consideration; but the territory covered by the different age groups really involves people having a personal territory which is unlikely to extend over the area of the neighbourhood unit. It will either be considerably smaller or much larger. The activities of children may be focused on their schools involving a much smaller area than the activities of teenagers which are perhaps focused more in the town centre.

If all things required to cater for the needs of all groups were to be placed in a neighbourhood unit it would involve duplication and inefficiency. The very fact that the economy seems to require a hierarchy of facilities means that while certain facilities can be provided on a local area others must be provided on a district, town, regional or even a national basis.

However, as the definition implies, it is not only the provision of certain facilities and amenities within walking distance of the home that makes a neighbourhood unit a neighbourhood. Their use must endow the area with a sense of cohesion. In order to attain this, planning in advance is necessary, with a keen awareness of the changing patterns of use, changing standards, and fluctuation in the activities of the neighbourhood, town and region. A neighbourhood unit that can support selected amenities to eliminate undesirable competition from other units and provide sufficient for the physical and social well-being of the population, is most likely to become a neighbourhood.

for someone from the south of England. A study by Caplow and Forman showed that, "Above a minimum length of residence of one year, there was no discernible relationship between length of residence and closeness or intensity of neighbourhood relationships. A variety of social factors such as age of children, possession of a car, ownership or rental tenure

CHAPTER VI

COHESION OF THE NEIGHBOURHOOD

The definition given for neighbourhood included "a certain sense of cohesion", and is a feature of urban life that has been considered important politically, socially, technically and psychologically, but is extremely difficult to measure because much depends on the community's structure, organization, atmosphere, size, attractiveness to a newcomer and prestige. Because of conflicting evidence one is hesitant about adding length of residence to the list. Firey wrote with reference to his work in Boston, "Thus permanence of locality is not as such a basis of group persistence since a good many groups, notably nomads and gypsies maintain solidarity without it. Actually it is but an external condition which, by virtue of its bearing upon social interaction peculiarly lends itself to the symbolic representation of group unity" (Firey, 1947, p.177). Freedman argued that mobility is consonant with membership cohesion, but Fellin and Litwak found that cohesion in a mobile group is much more dependent on the actual social characteristics of the mobile people and the groups they find themselves in. They suggested that a person's capacity to deal with group integration is a function of how much he has been trained to deal with change, hence though a person may have a shorter time span in a group he might, because of the speedy processes of integration have the same special span as those who spend a longer time in the groups (Freedman, 1950, p.192). Integration in New Towns must therefore be related to the types of lives led by the newcomers before their arrival. For example, people from parts of Glasgow may previously have lived in a limited environment and the change might be more disruptive than for someone from the south of England. A study by Caplow and Forman showed that, "Above a minimum length of residence of one year, there was no discernible relationship between length of residence and closeness or intensity of neighbourhood relationships. A variety of social factors such as age of children, possession of a car, ownership or rental tenure

and size of family, showed no correlation with neighboring, except that similarity to a neighbor in these respects contributed somewhat to a closer relationship" (Caplow and Forman, 1950, p.30).

Psychologists have done a considerable amount of work on the cohesiveness of groups. Lewin's concept of a group was that the essence lay not in the similarity or dissimilarity of its members but their interdependence (Lewin, 1952), while French stipulated that there also needed to be identification with the group and a sense of belonging (French, 1953). Deutsch stressed the need for co-operative interdependence because it is possible to have interdependence without cohesion, hence the motive for interdependence is significant (Deutsch, 1953). Cartwright and Zander considered that the properties of the group and of an individual determined the motivation to participate so cohesion relied on these (Cartwright and Zander, 1953, p.73-91). In addition communication within a group has been found to be significant - this may be a function of leadership and organization because it influences the amount of inter-action which is important for cohesion, and the amount of friendliness.

Sociologists have also written about this sense of community at length, and believe that it is not only a characteristic of neighbourhoods, but that it is essential for the well-being of the people. According to them, in its worst form the lack of sense of community will cause 'anomie'. This word, coined by Emile Durkheim, is now in widespread use. It refers to a psychological disturbance in an individual caused through loss or lack of group recognition, as well as to the lack of cohesion and weak group integration in an area. Durkheim reasoned that this was coincident with higher suicide rates because there was no group interaction where there could be release of tension, and thus he explained the social suicide rate as a sociological phenomenon (Durkheim, 1952). C.H. Cooley wrote, "We are dependent for moral health upon ultimate association with a group of some sort, usually consisting of our family, neighbours and other friends. It is the interchange of ideas and feelings with this group, and constant sense of

its opinions that makes standards of right and wrong seem real to us ... when we move to town, or go to another county it is not at all certain that we shall form new relations equally intimate and cogent with the old. A common result, is a partial moral isolation and atrophy of moral sense" (Cooley, 1918, p.180-1).

Judith Tannenbaum has commented on the effect that the large size of urban populations must be having, and considered a direct relationship exists between the size of the community, disintegration and lack of cohesion, and isolation of the individuals (Tannenbaum, 1948). Johannes A. Gaertner explained the significance of social cohesion when he said, "The feeling of belonging to a group, to be recognized, to have status, to fulfil a function in a social organism, to be needed, to share responsibilities, to have friends and neighbours is of great importance to human well-being" (Gaertner, 1950). This all involves active membership of the group, but Judith Tannenbaum considered that it should be possible to preserve one's anonymity if that is desired, and without belonging to church groups, labour unions, political groups, professional organisations, still be part of a group made cohesive through the arrangement of the physical environment (Tannenbaum, 1948).

Moving to any new environment and coping with any new set of circumstances might be an upsetting process and frequently causes unhappiness where there has been a big break from family ties in earlier home areas. "New Town neurosis" has been diagnosed where people are particularly lonely and insecure because of segregation from friends and relatives, poverty of the social environment, financial worries caused by hire purchase commitments, the change from using a gas meter to quarterly bills, higher rents, and the cost of new furniture. At the same time a nostalgia for the shops, old well-known public house, buildings and streets, and the sense of community aggravate the trouble.

Kinship bonds are of particular significance, and an article on overspill in the Weekend Scotsman entitled "Within a bus ride of Granny", indicates the strong attachment of former Glaswegians to the city, and to the fact that many

would not consider settlement outside the city unless within an easy day's return journey (Bruce-Watt, 1969). Jevons and Madge found in their Willesden survey that kinship remained an important social bond and that although fewer than a quarter of the people visited neighbours, 60% visited relatives outside the borough (Jevons and Madge, 1946). Whether there is a belief that young married couples should be independent and free from the ties linking them to their own parents and brothers and sisters or not, Michael Young and Peter Willmott have found that the extended family remains a reality, particularly in the working class and have described the mutual aid given in Bethnal Green, such as the way children stay with their grandparents after school while the parents are away working (Young and Willmott, 1957, p.38). A move to a New Town breaks up the reliance on and help given by the extended family simply by the barrier of distance. The cost of fares and travelling time involved makes this barrier almost insurmountable, but where frequent visits can be made to the home area, ties are maintained. The effects of the break up of kinship ties and the severing of community links have been reduced since elderly parents have had the opportunity to move to the New Towns with their married children. However, in a study done by Fellin and Litwak in Buffalo it was found the extended family groups rather than nuclear family ties were likely to be competitive with neighbourhood groups (Fellin and Litwak, 1963). In England Mogey found it appropriate to describe St. Ebbes near the centre of Oxford as "neighbourhood centred" and Barton Estate some three miles away, as "family centred" (Mogey, 1956, p.152).

Although group migration of people from the same neighbourhood has been discouraged, chiefly on the grounds of social balance, much can be said in its favour for re-establishing community life.

One method of trying to guard against the loneliness that so often occurs after the excitement of moving, has been the provision of large numbers of organized activities. Even from the point of view of accommodation it is essential that some of these are in the neighbourhood units because

the town centre could not serve them all, and without them the impact of the local group might be dissipated (Taylor et al., 1960).

Perhaps it is because many people have little experience of organised social activity that relatively few people seem to participate in these groups, many of which are struggling for existence. Unless they attract people from other neighbourhood units the people who are living nearby are often too small in numbers to give the activity sufficient support for its ultimate success. In addition, it is possible that lack of integration of the small organisations within the neighbourhood can limit cohesion within the unit unless a considerable amount of cross-membership occurs.

Membership of any active association may attract people throughout the unit, but in the early stages a feeling of belonging is most likely to be provided by familiar groups and organisations which link the new life with the old, such as religious organisations, political parties, churches. Some of these primary associations surround themselves with satellite associations made up of members of the dominant association or structure, but play a subordinate role to the structure with which they are affiliated. In Yankee City an example was given of the way the participation of members in these smaller clubs and activities help to integrate the primary association with the larger society and thence with the larger community itself (Warner and Lunt, 1941).

The type of association may help to determine the relationship of the people to the whole of the community. There will, for example, be a difference between free-lance associations such as those used for physical recreation, and those organized around total community interests or crises including charitable societies or groups which aim to improve the appearance of the community. If these voluntary associations are composed of neighbours and especially if they are concerned with neighbourhood issues, integration is likely to be faster, whereas if voluntary associations and interest groups are not local and cut across physical units they might even be a limiting factor

the area the population of which, however widely distributed, regularly turns to a common centre for the satisfaction of all or a major part of its needs" (Hawley, 1950, p.246).

in neighbourhood integration, and particularly if the participants spend much time away from the unit.

The National Council of Social Service recommended the formation of a Community Association, that is, "A voluntary association of neighbours democratically organized within a geographical area which constitutes a natural community, who have come together as members of existing organisations or as individuals, or in both capacities, to provide for themselves and their community the services which the neighbourhood requires", and that this should normally precede a Community Centre. The Community Centre is usually envisaged as a place where activities will bring strangers together to help break down shyness and loneliness. Whist drives, community singing and similar functions are therefore held in addition to the clubs and other groups catering largely to special interests (National Council of Social Services, 1945, p.3). As a result the centre tends to be used by a number of fairly homogeneous groups, and might even emphasize obvious differences existing in a heterogeneous population. Nevertheless this would not prevent it from reducing people's loneliness and it could even become the single focus of various groups in the community at different times. The extent to which it would make a heterogeneous community cohesive, is a point of debate. From a study of a Sheffield estate the problem was seen as one "of building community centres which are small enough to serve the needs of people who know each other as fellow-residents in the same neighbourhood, and yet will attract a sufficient number of people to prevent any one centre from becoming associated with a clique or sect and will make it possible for different kinds of people to join together in appropriate activities" (Simey, 1954, p.145-6).

The Dudley Report recommended that the Community Centre should be the neighbourhood focus and Leo Kuper commented that this emphasis on the Community Centre was because it was "conceived as the thing to transform the neighbourhood into 'community'".*

* Amos Hawley defined "community" as "The community includes the area the population of which, however widely distributed, regularly turns to a common center for the satisfaction of all or a major part of its needs" (Hawley, 1950, p.246).

M.P. Hall surveyed community centres in Manchester and Salford and said, "... many present-day tendencies, for example: increased mobility, the separation of work interests, mass entertainment, the growing importance of large compared with small local government units, and the increasing influence of the permanent official in civic and national affairs, all militate against the development of local consciousness and local effort. Collectively they give rise to the question as to whether the idea of the neighbourhood unit with a common life focused round the community centre may not be out of tune with the spirit of the age - a wistful looking backward to a tradition which is no longer valid" (Hall, 1946, p.85).

A sense of belonging is an integral part of group cohesiveness and it is probably stimulated by participation in social life, but is not necessarily absent because it has not been manifested in membership of groups or organisations. J.H. Nicolson said that the intention of neighbourhood units was "the recovery of a sense of community, now weak in many old areas, or sadly missed by those who come from areas where it is still strong" (Nicolson, 1961, p.74), and considered that the most successful neighbourhood units have been based on natural features that helped to instil this sense of belonging because they helped to make the place "recognizably different from the places where other men belong" (Nicolson, 1961, p.75).

The locality is also emphasised by Leo Kuper who wrote, "The ideal type of 'community' is characterized by strong attachment to the local area, a sense of belonging together, personal contact and effective ties between its members, and is most nearly approximated in small homogeneous groups living in relative isolation".

The plan of the town can have a marked influence on cohesion and several sociologists have remarked on this. Peter Willmott blamed the sprawl of the estate (Dagenham) and the failure to provide a lively civic centre or local corner shop and public house for the limited social mixing. Gillian Pitt described the effect the town plan has had on the development of community life in Crawley, a New Town

consisting of two concentric rings of neighbourhood units around the town centre. She believed that a strong sense of community has become obvious because the neighbourhood units were built one at a time, and people made frequent social contacts while shopping and meeting the children from school, whereas the public and recreational buildings in the town centre were not completed until later and public transport did not link individual neighbourhood units with each other. The neighbourhood units therefore remained self-centred, and this might have been at the expense of the cohesion of the town as a whole (Pitt, 1959).

Leo Kuper has suggested that there may be degrees of neighbourhood sentiment and this might vary from the intimate behaviour of neighbours to something much less personal. Cohesion is thought of as a result of friendliness and neighbourliness. Wilfred Burns has explained that it is because of the "lack of cohesion in a city's social structure, its supposed unfriendliness, the inadequate social and cultural life which its inhabitants can take part in ..." that the neighbourhood unit is used (Burns, 1951). Likewise Peter Collison understood a reason for neighbourhood unit planning was to make people conscious of belonging to a community by giving them a feeling of responsibility and loyalty to it, and thus to prevent the New Towns from adopting the characteristic features of dormitory suburbs (Collison, 1954b).

R.J. Hacon stated that although a feeling of group awareness might be facilitated by using the same shops and other facilities, that alone is insufficient because it stems from common attitudes and significant commitments, e.g. joining the same church or drama group. However he also believed that the area in which these activities take place is irrelevant and that a sense of neighbourliness could still exist if they were located outwith the neighbourhood unit. As a sociologist he accused planners of stressing the location of services rather than the activities and relationships which create the bonds that link members of the community (Hacon, 1955).

Lewis Mumford came to a conclusion that neighbourhood consciousness might be a result of topography or of old historic divisions or grouping around certain domestic and civil facilities or because of grouping in occupational zones (Mumford, 1954), while Durkheim decided that geographical divisions were for the most part artificial and no longer awakened any profound sentiments.

The Dudley Report stated, "It often happens that all forms of community provision, even the pubs and the shops, are inadequate to induce any growth of neighbourhood feeling, and even the physical arrangement of the place presents as many obstacles to it as the older towns do (Ministry of Health, 1944, p.58). In fact, the very absence of facilities can stimulate a community spirit in the same way as common difficulties occasionally do. Johannes Gaertner said, "Civic conscience and social cohesion will always arise where there is need of common defence, in catastrophes and emergencies where a community is sufficiently insulated where mobility is restricted and where extra-administrative interests are of over-whelming importance", and added that co-operation would last as long as the reason existed (Gaertner, 1950). Similarly conflict can promote a feeling of community, and unity may be maintained by adopting a real or imaginary enemy. Even conflicts with the local authority or Development Corporation could create bonds and not necessarily prove disruptive.

A correlation between poverty and social integration was observed by Ruth Glass in Middlesbrough and led to the suggestion that cohesion may even be a sign of low social development. This contradicts Fellin's work where it was found that home owners rather than renters tend to be more neighbourly and thus encourage social cohesion.

Features providing the best conditions for social cohesion and civic consciousness, but not necessarily creating them, have been listed by Johannes Gaertner: "A common interest in the education and safety of children; the health, safety and convenience of the neighbourhood; the common interest in the administration of this neighbourhood ...; physical proximity with possible congenial

neighbours; common entertainment and instruction in some levels; an aesthetical interest in the beautification of a particular neighbourhood; and finally perhaps a competitive spirit in matters of sports, beautification, material progress and safety as compared to neighbourhoods" (Gaertner, 1950).

The characteristics of neighbourhoods as defined, along with some characteristics of neighbourhood units in British New Towns have been outlined. By taking examples of areas in three of the Scottish New Towns, their geographical characteristics will be examined in order to identify features that have developed because of their location and the way they have been planned. This will involve a study of the activities of the people and their reactions to their new environment in relation to the stage of development.

The degree that geographical features of a neighbourhood unit approximate those of a neighbourhood should provide an aid to determining the value of planning neighbourhood units in the Scottish New Towns.

PART II

THE SCOTTISH NEW TOWNS

Introduction

In the Preamble of the Clyde Valley Regional Plan was written, "Physical planning is not an end in itself. The shape and size of towns and villages and their relation to each other, the intricate pattern of roads and byeways, railways, canals, harbours and docks, the use of the land, its exploitation and preservation, even the very appearance and quality of urban and rural architecture - all these are meaningless except as the expression of human needs. For this reason, and especially so in the Clyde Valley Region, physical planning to be fully effective should go hand in hand with economic and social planning" (Abercrombie and Matthew, 1949, p.1).

With this policy in mind the authors recommended methods they believed could help to overcome the desperate housing conditions in areas with exceptionally high densities of up to 700 people per acre and the serious industrial congestion in Glasgow and other parts of the Clyde Valley; and to raise the standard of living during the following twenty years in the counties of Dunbarton, Lanark, and Renfrew as well as a large part of Ayrshire and a few parishes in the county of Stirling.

They recognised that methods of remedying these problems had to take into account the topographical difficulties of the surrounding area which limited further expansion of the built-up areas, the desirability of maintaining the separate identity of individual towns by a system of open spaces, the need to preserve good quality agricultural land and the interests of agriculturalists nearby, the need to plan the movement and distribution of population in relation to employment opportunities and the over-balanced development of Central Scotland compared with the rest of the country.

By the end of the nineteenth century Glasgow had become the main focus of internal movements of population in Scotland, but between the wars there had been further heavy emigration to Glasgow from Lanarkshire and lower Clydeside, particularly from areas where there had been an emphasis on a single industry. To solve the continuing problem of overcrowding it was recommended that about a quarter of a million Glaswegians be housed in communities on the outskirts of the built-up area, and a similar number be accommodated in a number of New Towns ranging in size from 40,000 to 60,000 people at Cumbernauld-Condorrat, East Kilbride, Bishopton and Houston. In addition there was to be a build-up of a number of towns and villages in the region. East Kilbride was to draw a substantial part of its population from other overcrowded parts of northern Lanarkshire as well as the City.

The Report of the Scottish Housing Advisory Committee on the Distribution of New Houses in Scotland had earlier put forward a case for the development of a small number of New Towns in Scotland, possibly in connection with some large new industrial development, under the auspices of a Public Board financed by the Exchequer. This Report also recommended that, "In the initial stage, a new neighbourhood unit should be sited in the vicinity of existing industry; or that a new industry and group of houses for the workers should be developed simultaneously"; and where this was not practicable an industrial zone was to be planned in relation to the neighbourhood unit (Scottish Housing Advisory Committee, 1944, p.95).

The New Towns suggested by the Clyde Valley Regional Plan were all to be situated within the Development Area and were to have careful regulation of new industry which would also prevent the formation of dormitory towns.

The neighbourhood unit concept was suggested in the Report on the Distribution of Houses in Scotland mentioned above. First the case was made for community development based on the gregarious characteristics of man; the need for improvement in the quality of life and convenience of living by siting facilities within the immediate vicinity belt to avoid fusion with other urban areas, a pattern that was to be repeated in the development of other New Towns.

of residences; the desirability of a well-balanced community covering a variety of incomes, occupations, social and intellectual interests; and the opportunities such development would give for political expression. Community development was considered as being dependent on two main factors: "(a) the facilities required by the population to be housed, and (b) the distance from the population served" (Scottish Housing Advisory Committee, 1944, p.56). The "basic community", that is, a neighbourhood unit of 5,000 to 10,000 people was conceived as being divided by local traffic routes into residential units of 300 to 400 houses. The Clyde Valley Regional Plan recommended neighbourhood units of the same size range.

The Scottish Housing Advisory Committee, with reference to the size of the neighbourhood units, stated, "Theoretically the area required for a neighbourhood unit should be small enough to make the unit compact and bring its inhabitants within a reasonable walking distance of its shops and community facilities; and large enough to provide for open spaces and an open housing lay-out" (Scottish Housing Advisory Committee, 1944, p.58). Figures suggested were 12 houses to the acre (or 50 persons) in residential sections. The Clyde Valley Regional Plan considered that higher densities were realistic and suggested 60 persons per acre net residential density over a whole neighbourhood, with up to 90 persons per acre for individual groups near the centre.

Further recommendations of the Scottish Housing Advisory Committee included the provision of shopping facilities, schools, churches, community centres, playing fields and green wedges, strips and belts, and easy access to a rapid transport system.

Although the Regional Plan was not concerned with the details of individual towns it was on the basis of its recommendations that the first draft order in terms of the New Towns Act, 1946 was published for East Kilbride. The Final Order came on 6th May, 1947 whereby 10,250 acres were designated in the parishes of East Kilbride, Carmunnock, Cambuslang and Blantyre (Scottish Department of Health, 1947). Of this, approximately 7,750 acres were to be left as a green belt to avoid fusion with other urban areas, a pattern that was to be repeated in the development of other New Towns.

CHAPTER VIIEAST KILBRIDE

The aim of the original master plan was to build a New Town for not more than 45,000 people at East Kilbride, a village eight miles south-east of Glasgow, five miles from Rutherglen, six miles from Hamilton and three miles from Castlemilk. The undulating site of the area which is just over 500 feet above sea level has a number of small streams draining to Calder Water in the east, and eventually to the Clyde. Heavy boulder clay covers much of the area, with patches of softer ground and peat. A scattering of woodland and the absence of sporadic development made the possibility of development easier. The rural area was, at the time of designation, devoted primarily to dairying, but formerly was the land of the hunted fugitives of the Covenant. The village has had close connections with Glasgow for centuries, the church of Kilbride being recognised as a possession of Glasgow in the twelfth century. East Kilbride became a market town holding weekly markets and four fairs a year in the time of Queen Anne. In the nineteenth century Maxwellton, to the east of the village, had become a settlement of weavers.

Of the population originally proposed for the New Town approximately 75% were expected to come from Glasgow and most of the other immigrants from the Cambuslang-Blantyre area or the surrounding area which already accommodated 2,500 people. Since then the target population has been changed several times, first being raised to 50,000 in 1955 by building at a density of 15 houses to the acre instead of 12. The Corporation considered that, "Any substantial increase above this figure [50,000] would involve difficulties in the provision of schools and services, increased industrial areas and the re-planning of remaining Neighbourhood Areas" (East Kilbride Development Corporation, Ninth Annual Report, 1957, p.36). By 1960 it was assumed that natural increase would cause the town to reach 70,000 by the 1980's, and the following year an initial build-up to 55,000 was anticipated. At present, in 1969, the target population

2,792 families had actually been housed under the overspill scheme at the end of 1957 (Corporation of the City of Glasgow, Housing Management Department, 1967).

is 100,000 which includes natural increase of an immigrant population numbering 70,000. At the end of March, 1968 there was a population of 58,880 in the town, approximately 60% of whom, it is estimated, came directly from Glasgow. The proportion coming from Glasgow each year has varied from below 50% to almost 65%. Some of them have come under overspill terms. This means that people who are on the Glasgow Corporation Housing List or from Glasgow Corporation houses are nominated by Glasgow, and Glasgow contributes to their rehousing. By March 1968 the total number of overspill families in East Kilbride was 2,527* while 9,360 other families from Glasgow had been housed.

The housing policy has changed with the development of the town, and as a result the structure of the neighbourhood units is likely to reflect this. For example, in October, 1965 applications from building workers were restricted. The basic principle has been that if a person is employed in East Kilbride he is eligible for a house. This policy has aimed at a self-contained town and the avoidance of dormitory conditions. The aim to achieve a balance between local employment and house completion has been difficult to achieve. House Management policy was broadened considerably in 1963 when applications were listed under the following four priorities:

1. (a) Workers employed in local industry.
- (b) Workers who lived in East Kilbride prior to 1950.
- (c) (i) Retired parents of local residents.
- (ii) Parents who cannot work due to medical reasons.
- (iii) Parents over sixty years and employed in the fringe area of East Kilbride.
2. Local residents, i.e. second generation families where the principal breadwinner is not employed in East Kilbride.
3. Persons with four or more of a household employed within the fringe area of East Kilbride.
4. Exceptional cases.

(East Kilbride Development Corporation, Sixteenth Annual Report, 1964, p.61-2).

* 2,792 families had actually been housed under the overspill scheme at the end of 1967 (Corporation of the City of Glasgow, Housing Management Department, 1967).

Two years later applications were also invited from daughters of East Kilbride residents if the daughters had lived continuously in East Kilbride for five years. Also the policy of house exchanges was considered for people not working in East Kilbride provided that the place of work of the incoming tenants was nearer to East Kilbride than that of the outgoing tenant. The chief priority has continued to be for incoming workers although two and three apartment, high standard executive flats in multi-storey buildings have been made available to people working outside East Kilbride.

The proportions of people moving to East Kilbride from other areas for the four years until March 1967, show that the numbers coming from Glasgow are not as high as originally expected, but still account for more than half of the annual immigrant population.

Table 7.1 Origin of Immigrant Population to East Kilbride

	<u>1963-4</u>	<u>1964-5</u>	<u>1965-6</u>	<u>1966-7</u>
Glasgow	58	55	51	54
Lanarkshire	33	30	25	26
Rest of Scotland	6	11	17	13
Rest of United Kingdom	3	4	7	7

[Source: Annual Reports of the East Kilbride Development Corporation.]

Town Plan (see street map in pocket at back of volume)

The designated area of 10,250 acres includes the land that will be preserved as a green belt as well as for five neighbourhood units and four industrial zones and 55 acres for the town centre with its town park, shops, offices, hotels, civic buildings and recreational facilities. Four of the neighbourhoods are virtually complete but St. Leonards which was only started in 1966 is still under construction. A southern extension area which is also being planned to house second generation families is designated to have its own centre with shops, offices,

surgeries, cafes, post office, petrol station, public house, branch library and parish church in the same way as the neighbourhood units that have already been established. Throughout the town the average housing density is about seven dwellings per acre gross or 15 dwellings (58 people) net.

The town centre was sited about quarter of a mile south of the old parish church and the old village. Subsequently the aim has been to encircle the town centre with attention focused on the centre from the beginning. The existing village was incorporated in the East Mains neighbourhood unit and the shopping centre there served as a temporary town centre before being taken over as a neighbourhood centre for East and West Mains. The first housing construction rounded off part of the existing village and utilised existing public services. The next part to be built was part of The Murray neighbourhood on the south side of the civic centre. At a later stage the old weaving settlement of Maxwellton was engulfed by the Calderwood neighbourhood.

The residential area of the town is almost triangular in shape, with three of the industrial zones on its periphery - College Milton in the west, Nerston in the north and Kelvin in the south. The fourth industrial area, Birniehill, is located to the south-east of the town centre. East Kilbride is divided into three major areas by the three main roads, i.e. Queensway, Kingsway and Strathaven Road. To the south of Queensway, The Murray, the first completely new neighbourhood, was established, and Westwood is still being built. West and East Mains are to the north of Queensway and west of Kingsway. Calderwood neighbourhood, the area to be considered in more detail, had its first Corporation houses finished in 1955 and was almost completed at the time of the survey in the first half of 1968. Both Calderwood and St. Leonards, the newest neighbourhood unit which is still in early stages, are to the north-east and east of the town centre. The town centre itself is near the junction of these principal roads which also lead in the directions of Glasgow, Rutherglen, Hamilton, Strathaven, and the town's industrial areas.

(Singer, 1966, p. 83).

CALDERWOOD

The shapes of the neighbourhood units are somewhat irregular. Unlike the location, adjacent to the town centre, of the first neighbourhood units, Calderwood's southern tip is over a quarter of a mile from the centre. The shape approximates that of a boomerang bent around a low hill rising to just over 700 feet at Brankumhall.* The land between Kingsway and Calder Glen to the east is chiefly undulating. Between Calderwood and St. Leonards neighbourhood to the south-east are a variety of boundary features. Both the Hunter Schools and St. Leonards School lie between the two units, as well as the industrial buildings of Galloway and Sons. A narrow wooded valley forms the boundary in the north and further green wedges are planned to delimit the units further south, but some of these have not yet been formed.

Other neighbourhood units in East Kilbride are delimited by similar means, i.e. the main road system as well as roads of secondary importance, the edge of the green belt, hedges and school playing fields, so that from this point of view there is not much difference from one unit to the next. The division between Calderwood and St. Leonards at this stage is not physically very marked in some parts.

Communications in Calderwood

A knowledge of the road pattern both in and around Calderwood is essential in a study of the unit's characteristics. Kingsway, the dual carriageway forming the western boundary, carries traffic from Glasgow and Rutherglen to the north and separates the residential area from that of East Mains. To the north the A776 to Hamilton, also a dual

*. This is classified as a K type by Bunge. He has found that in Mexico, at least, this shape is associated with uniformly small communities with an average of .03 square kilometres and a standard deviation of .02 but admits it is difficult to understand why this should be linked to tiny settlements unless it is because it is an "inefficient shape in regard to transportation within a community and can be tolerated only where distances are inconsequential" (Bunge, 1966, p.83).

carriageway, divides Calderwood from part of the Nerston Industrial Area and part of the green belt. The boundary to the east is Calder Glen and green belt, and is associated with no major road artery. Hence main roads lie to the north and west.

As junctions with dual carriageways have been kept to a minimum the motorist from the neighbourhood gains access to these arterial roads either at the Whirlies Roundabout in the north-west of the neighbourhood, or at the Whitemoss Roundabout in the south-west, the two being situated about three-quarters of a mile apart. A footbridge enables pedestrians to cross Kingsway to East Mains while underpasses serve a similar purpose for those crossing the Hamilton Road to the north, or at the Whitemoss Roundabout.

The aim of the major road pattern throughout has been to link together the main sections of the town and also to provide through traffic with direct routes passing close to the industrial areas and the commercial centre. This follows the recommendations of the Clyde Valley Regional Plan which "assumed that all major through traffic routes ... should be excluded from the town or, if passing through, should be isolated from local traffic and treated as though they were railways" (Abercrombie and Matthew, 1949, p.270).

The pattern of principal internal or secondary roads in Calderwood is arranged in a series of loops. Calderwood Road, completed in 1958, curves between the two roundabouts mentioned above while Maxwellton Road and St. Leonards Road form a large loop through the new St. Leonards neighbourhood, joining Calderwood Road near both its northern and southern ends. These principal internal roads are used as but routes as well as giving access to some houses.

Different parts of the neighbourhood have differing road patterns. For example, in the northern part of the neighbourhood the design is similar to a Radburn plan with roads on one side of the dwellings and footpaths on the other. These access roads branch off the secondary roads and end in culs-de-sac. The area west of Calderwood Road is older, with the old village of Maxwellton near its centre. Maxwellton Avenue serves as a minor spine with roads looping

to and from it. Likewise a certain variation in road pattern is found from one part to another of the other neighbourhood units.

In theory an effort has been made to ensure that greenways in housing districts have permitted pedestrian and vehicle segregation, but practice has not always followed the theory. In the fifteenth Annual Report of the Corporation it was stated that in future the greenway principle would be adhered to, so Calderwood XIV and those following it in the north were arranged with complete segregation of vehicular and pedestrian traffic, with each house having a garage at the end of the back garden. Also at the back the road gives access for traders' vans, refuse collection, lorries and residents' cars. Lock-ups have been provided for every flat as well as one parking space for every two dwellings. West of Calderwood Road in the part that was established at an earlier date, footpaths were constructed alongside the roads. Hence the segregation of pedestrian and vehicular routes is commonest in the north and east of the neighbourhood, that is, the parts that have been built most recently. Because of the danger to pedestrians crossing the principal internal roads, footbridges have been constructed across Maxwellton Road and St. Leonards Road, but neither of these existed at the time of the survey.

Patterns of public transport are related to the hierarchy of the roads. The local buses started by linking The Murray with the old village and the Nerston Industrial Area. While the old village was still serving as a centre Westwood also obtained a local service to that area. Bus routes and services to Glasgow from various parts of the town have increased with the growth of the town. The bus routes mentioned below are those that go along Calderwood Road. The East Kilbride-Busby-Glasgow route starts at Maxwellton Road and goes to the town centre, through the Mains neighbourhood, to College Milton and through Phillipshill, Busby, and Cathcart to Victoria Bridge in Glasgow. These buses run at half-hourly intervals through most of the day.

Another route for buses with the same destination goes along The Murray Road, Westwood Road and to College Milton before going on to Glasgow. These also leave at half-hourly

intervals, the last bus to Glasgow leaving East Kilbride at 2208 hours on weekdays and a little earlier on Sundays. The earliest buses on this route leave at 0540 hours. In the opposite direction the last bus leaves Glasgow to return to Calderwood at 2300 hours during the week and quarter of an hour earlier on Sundays.

A service from Hairmyres to Glasgow also goes from the town centre along Calderwood Road before continuing via Burnside, and Rutherglen to Glasgow. It is mainly a half-hourly service and the last of these buses leaves Hairmyres for Calderwood at 2344 hours. The last journey in the opposite direction from Glasgow leaves at 2310 hours. Both of these routes go along Murray Road and Westwood Road and so serve as a link with other parts of the town.

The East Kilbride (Westwood Hill)-Glasgow route likewise goes through other neighbourhood units before reaching Calderwood Road on the way to Glasgow, buses leaving every half-hour until 2218 hours from Westwood Hill, but an additional three go from Westwood Hill to Calderwood later in the evening. The last bus from Glasgow along this route leaves at 2320 hours.

In the summer for the benefit of those wishing to visit the seaside four buses every Saturday and Sunday go from Ayr to East Kilbride.

In addition to the above services all of which are routed through the neighbourhood unit along Calderwood Road, services from Airdrie-Coatbridge pass one side of the neighbourhood, that is, along the Kingsway. This route also passes through High Blantyre, Burnbank, Hamilton, Motherwell and/or Bellshill, at intervals of approximately half-an-hour throughout the week, the last bus running after 2300 hours.

Another service passes along the northern boundary of Calderwood en route from Motherwell via Hamilton and Burnbank to the town centre. This service is infrequent, mainly to serve workmen and really only supplements the services mentioned above. The services from Hamilton to Eaglesham are also infrequent and only pass part of the periphery of the neighbourhood.

Other routes serve parts of East Kilbride but do not go through or adjacent to parts of Calderwood. For example, the service between Glasgow and Hairmyres avoids Calderwood but serves East Mains, the town centre and The Murray. It can be seen that most parts of East Kilbride, including Calderwood, have frequent contact, through the medium of public transport, with other parts of the town and with Glasgow.

The passenger railway facilities have much less direct influence on Calderwood because of the distance from the railway station which lies north of the town centre. Proposals to electrify the Glasgow-East Kilbride line and establish an interchange of rail and bus traffic, have not been finalised. Reductions in train services in Autumn 1958 and the elimination of all trains after 1930 hours caused inconvenience to those who visited Glasgow by train in the evenings. When the closure of the rail service to East Kilbride was forecast by the Beeching Report the Glasgow-East Kilbride Railway Development Association came into existence, and in January 1966 an appeal against the closure of the passenger train service was upheld by the Minister of Transport. An improved service was instituted and now approximately an hourly service operates between East Kilbride and Glasgow Central on weekdays.

Open Spaces in Calderwood

The location of open spaces is a major criterion in giving a neighbourhood its sense of identity, thus it is important to understand the uses made of such spaces. The Clyde Valley Regional Plan recommended that outdoor recreational facilities should be of three main types: playing fields, parks, and playgrounds, with seven to ten acres of open space for every thousand residents. The plan also suggested that children of three to five years should have "properly equipped playgrounds within easy reach of every home in addition to those provided by nursery schools". Furthermore, children of five to eleven years would play in the primary school grounds as well as the eight additional small playgrounds of between quarter and half an

acre scattered about parts not adjacent to schools. Children from eleven to fifteen years would use secondary school grounds and communal playing fields but there should be two one-acre plots for those not living within about 600 yards of the school playing fields. The communal playing fields would contain pitches for a variety of games and be centrally placed near the secondary school. In addition, a bowling green and an adequate park system with pleasant and varied walks were suggested. The idea was that the park system could be woven into the playing field system, some parts forming strips of open space separating neighbourhood units, and some penetrating into the units. Roads and paths would lead through these ultimately to the open country.

Basically three levels of open space and associated recreational features are found in East Kilbride. There are those meant to serve the whole town, those meant to serve the inhabitants of one neighbourhood or district and those provided by business firms or clubs primarily for a selected group rather than on the basis of residential location. The Fifth District Council of Lanarkshire was the main group responsible for the provision, layout and equipping of parks and playing fields until the town was granted burgh status. It became a small burgh in 1963 and a large burgh in 1967, and the town council became the responsible party.

Among the public recreational facilities planned for the whole town is the town park which is part of the town centre plan but still in the early stages of development. The Olympic-size swimming pool was completed during the time of the survey and the Corporation expect that this ought to foster community spirit and improve the health and physique of the children using it. Torrance House situated in a wooded area south of St. Leonards neighbourhood, in the extreme south-east of the town, and separated from the Kelvin Industrial Area to the west by the A726 which leads to Strathaven and the south, is a seventeenth century mansion house with three hundred acres of open land. A scheme has been prepared to convert it into a country

club with a municipal golf course, driving range, putting greens and facilities for tennis, hockey, rugby, cricket, squash, rifle shooting, clay pigeon shooting, archery, and fishing. There were even plans for an artificial ski slope.

The Clyde Valley Regional Plan prescribed a strip or corridor of parkland surrounding the neighbourhood units, these strips radiating from the town park near the town centre and joining the green belt of recreational land surrounding the town. In the south and east of the town, plantations of both old woodlands and recently planted trees form an almost continuous shelter belt between the residential area, and the green belt and the Kelvin Industrial area. Strips of woodland have also been located so that they separate blocks of residential land.

Recreational areas are provided within Calderwood in a way similar to other neighbourhood units, but because of the boomerang shape of Calderwood the open spaces could be located so that at least some were both peripheral and fairly central at the same time. On the whole the location of playing fields in this neighbourhood is more peripheral than in other units. They are either adjacent to the principal loop roads - Calderwood Road and Maxwellton Road in the case of the Calderwood neighbourhood - or peripheral to the neighbourhood. The Whitemoss Recreational Area in the southern part of the unit is accessible from Calderwood Road and the Whitemoss Roundabout, but Kingsway tends to make it less accessible from the adjacent part of East Mains. Within this area are three tennis courts, a pavilion, a bowling green and two football pitches. A further open space along Maxwellton Road will eventually provide seven or nine football pitches. In addition are playing fields associated with the primary and secondary schools although the Clyde Valley Regional Plan in fact assumed that separate playing fields were unnecessary for these schools because they would use the space reserved for organized games for the whole neighbourhood.

Within each neighbourhood children's playgrounds have been established and provided with slides and swings. The plan to have these ready in each housing development before

the houses were occupied was not always possible. The reason is partly economic, as the District Council was not always able to borrow the money for the playgrounds at the time they were needed. Nine such playgrounds are now found in Calderwood - Blackbraes Road, Ayton Park North, Maxwellton Avenue, Backmuir, Hazelhead, Macbeth, Thorndyke, Pembroke and Tewkesbury. Although scattered, the majority are in the northern section of the neighbourhood. In addition to these, minor open spaces and front gardens throughout the town have been grassed so that the town has a feeling of openness.

Open space controlled by private groups in East Kilbride falls outwith the residential areas. Firms established in the town have arranged for land to be available for recreation. For example, Rolls-Royce arranged with the Cattle Show Society for land to be available for sport, while Mavor and Coulson have their own sports park, and tennis courts belonging to the National Engineering Laboratory are used by its employees. The private golf club which previously had a lease on agricultural land in the St. Leonards neighbourhood has now been moved onto land north of the A776 (Hamilton Road) in the north-east of the town.

As a result of the disposition of open space everyone is within half a mile of some kind of playing field although people living at the other end of Calderwood may have to travel as much as two miles to Whitemoss for semi-organized sport.

Location of Schools

Many neighbourhood plans have been focused on the schools, so it is necessary to consider the location of schools in the neighbourhoods of East Kilbride. School location was meant to have been of prime importance in the preparation of the master plan, and in the third Annual Report the sites of schools were described as forming a pivot of residential areas. As in the rest of Scotland, the actual provision of educational services is the responsibility of the County Council. The primary schools

provide education for children from five to twelve years and were planned so that they would be convenient to the children's homes. They were a principal factor in determining the size of the neighbourhood unit, the aim being that children would not have to cross main roads on their way to school.

In Calderwood, or on its periphery, are four non-denominational primary schools, Maxwellton, Long Calderwood, Hunter and Allers; and one Roman Catholic School which opened during the period of the survey. Hunter Primary School and St. Leonards Roman Catholic Primary School are located between the St. Leonards and Calderwood neighbourhoods. Until St. Leonards School was built Long Calderwood Primary School was used as an annex of St. Bride's Roman Catholic School.

At the beginning of 1968 most secondary school children were attending schools based on geographical zones and according to their ability. For example, a pupil living in Calderwood and approved for an Ordinary Grade or Standard Secondary Course, and who would not be continuing at day school after reaching the statutory school leaving age, attended Hunter High School situated on a hill between Calderwood and St. Leonards neighbourhoods. The only school providing courses leading to Higher Grades was Duncanrig School in Westwood. The change to a system of comprehensive schools will eliminate this distinction in the future.

St. Bride's Roman Catholic School at Platthorn near the town centre provided courses leading to the award of the Scottish Certificate of Education at the Ordinary Grade as well as providing standard secondary courses. Pupils accepted for Higher Grade courses attended Holy Cross Roman Catholic High School in Hamilton.

Most of the schools in the town provide accommodation for other purposes such as evening classes, concerts and meetings. The majority of the evening classes are of a non-vocational nature and students requiring higher education still must travel to Cambuslang, Coatbridge, Hamilton, Motherwell and Glasgow.

Sites have been reserved for nursery schools, but until their construction is imminent the areas are being used as play areas. At present the only private nursery is in the old village.

The residents of Calderwood consequently have primary schools less than half a mile from every home and a secondary school that serves some of the secondary children, within a mile. These schools could therefore act as several sub-foci in the unit or the Hunter Secondary School might act as a major focus. The geographical location could have an influence in this respect, but the fact that these schools might not have a cohesive effect on the population as a whole is important in a discussion about neighbourhood units.

The Neighbourhood Shopping Centre

The location of shops is likely to affect a higher proportion of the population. In the initial stages of the town's development the shops used were privately owned stores in the old village. Apart from these, the Development Corporation has control of shopping provision. Basically, a hierarchy of shopping centres exists within the town. In the town centre is planned a full range of shopping facilities. Although first designed along conventional lines with a main street through the centre, the town centre is now a pedestrian precinct with free car parking at intervals around the perimeter and separate access for delivery to shops. Specialist shops recently opened in an arcade are in addition to the department and variety stores, supermarkets, banks and restaurants. There is a marked dominance of branch stores.

It has been the aim of the planners to make this town centre not only a shopping and commercial centre but a focal point of the town. The neighbourhood shops are expected to provide a focal point in each neighbourhood. Food shops and shops for other convenience goods are planned for these areas as well as certain service facilities such as branch libraries, petrol stations. Calderwood neighbourhood shopping centre also had doctors and a dentist with surgeries at the shopping centre at the beginning of

1968 although this was only a temporary arrangement. The thirteenth Annual Report referred to the completion of the first phase of the Calderwood shops and at that time, 1961, there were seventeen shops, medical and dental surgeries, a branch of the county library, a Corporation rent office and premises for an optician, photographer and watch repairer. The main policy for the provision of neighbourhood retail facilities has been, "To provide a limited number of shops according to the sizes of the residential areas, to stipulate a minimum range of trades which should be represented and to define them by trading clauses, and to invite offers of rent from experienced shopkeepers who have studied the trading potential of the areas" in line with the Reith Committee recommendations (East Kilbride Development Corporation, Fourteenth Annual Report, 1962, p.84). The retail and service shops in the Calderwood neighbourhood centre at the time of this survey included a fishmonger, fish frier, two bakers, butcher, radio dealer, ladies' and gentlemen's hairdresser, confectioner, newsagent and tobacconist with a sub-post office, draper, co-operative store (grocery, dairy and butcher), grocer, chemist, green-grocer, hardware merchant, shoe repairer, dry cleaner and dyer, and a laundrette.

In the outer parts of Calderwood are three smaller groups of shops. One group in Maxwellton Avenue includes a public house, a hairdresser, two betting shops, butcher, hardware shop (selling wallpaper and paints as well), newsagent and tobacconist, a grocer and a general store. The other two are individual corner shops, one in Maxwellton Road and serving people residing in the northern part of the neighbourhood, and the other further north-east in the Thorndyke-Neville area. This last shop was only opened during the time the survey was being carried out.

Similar shopping and service facilities have been provided in the other neighbourhood units, i.e. a neighbourhood shopping centre with a selection of convenience goods shops and two or three corner shops. Branches of banks are found only in the town centre and the old village.

Residents are also able to take advantage of mobile shops and trading from vans. These have been blamed for the difficulty which new shop tenants have in establishing themselves, but have been an important feature in the shopping provision in the New Town. Grocers, greengrocers, butchers, confectioners and bakers sell their merchandise by this method, throughout the town.

Churches

Near the Calderwood shopping centre is Moncreiff Church, one of the five parish churches found in East Kilbride. The Moncreiff Church is situated centrally at the junction of Calderwood Road and Maxwellton Road. In the town there are also two Roman Catholic churches, the nearest to Calderwood being St. Bride's on the road between Calderwood and the town centre, and churches and meeting places of eleven other denominations scattered throughout the town. For example, a Salvation Army Hall was opened in The Murray in 1959 and St. Mark's Episcopal Church is also found in The Murray neighbourhood. The Church of Scotland is the only denomination with a building in Calderwood.

Apart from worship most of the churches cater for various groups. For example, the Moncreiff church organizes Women's Guild, Men's Association, Sunday Schools, Choir, Junior Boys' Brigade, Boys' Brigade, Young Mothers' Fellowship, Scouts, Cubs, Girl Guides and Brownies, Girls' Guildry, Speedwells, Rosebuds, Youth Fellowship, Pilgrims, children's play groups.

Clubs and Organizations

In addition to organizations falling under the auspices of the churches, Youth Clubs are held in Long Calderwood Primary School, and Maxwellton School in Calderwood. Other groups formed specifically within this neighbourhood unit include the Calderwood Ladies' Club, Long Calderwood Residents' Association, Calderwood Residents' Association, Whitemoss Darby and Joan Club. Approximately one hundred and fifty voluntary organizations are listed in the East

Kilbride's Tenants' Handbook in addition to those considered as church organizations, but the majority appear to cater for the special interests of people living over an area more extensive than an individual neighbourhood unit.

The other established neighbourhoods have similar ranges of activities with one or more churches and their associated groups, Youth Clubs, political and residents' associations, and services for elderly people. The location of halls and meeting places for these groups is significant. Apart from school buildings and the church hall, a Scout hall and a building belonging to the Officers' Training Corps, such accommodation is lacking within Calderwood. The town hall, a masonic hall, the buildings belonging to the Y.M.C.A. and a few other meeting places are found in The Village and other neighbourhood units, but throughout the town's history bodies such as residents' associations, cultural societies and political groups have had to make use of school buildings because they have been unable to obtain other hall accommodation in the new housing areas.* In the fifteenth Annual Report it was suggested that the shortage of meeting places and recreational facilities tended to delay the growth of community spirit and civic pride. However because people are forced to use the few available facilities it is possible that such facilities have provided neighbourhood foci that might otherwise not have developed.

Population Structure

The provision of public amenities in any neighbourhood or town is influenced to a large extent by the age structure of the populations. Use has been made of the Sample Census, 1966 for comparative purposes as this is the nearest official source of statistics to the date of the survey. East Kilbride was at the time of the Census, still a small burgh. The sample was 10% and the sampling frame excluded

* Industrial concerns have made some accommodation available for public entertainment, such as the Rolls-Royce canteen hall and the hall belonging to the Mechanical Engineering Research Laboratory, but these are outwith the residential areas.

certain houses which were occupied for the first time during the month or so immediately preceding the census; and the figures also include the whole of East Kilbride Burgh (General Register Office, 1967, Appendix A, p.xxi).

Statistics have also been obtained for the five Enumeration Districts from the Ward Library tables of the same Sample Census that fall within the Calderwood Ward. The boundaries of these do not coincide with the neighbourhood boundaries. Furthermore these figures will only serve to illustrate certain features in 1966, and cannot account for the increased population of 1968. Figures that have been obtained directly from the East Kilbride Development Corporation have also been used. The Corporation have recorded a population of 12,401 in Calderwood at 31.3.66, 16,806 at 30.11.67 and 17,806 at the end of 1968.

Figure 7.1 shows the differences in age structure between the County of Lanark and East Kilbride and the Calderwood neighbourhood. Compared with the County of Lanark, East Kilbride has a much more youthful population with higher percentages in the population in all of the age groupings except between 15 and 24 years and over 44 years. More than double the proportion of people in the age group over 60 years are found in Lanark than in East Kilbride. The first new houses were completed in Calderwood in November 1955, so it was after that date that the original population of 380 was increased in this area. The population structure of Calderwood is fairly similar to that of East Kilbride as a whole, but this does not mean that Calderwood is necessarily representative of all neighbourhood units in the town, although it might be thought of as representing the town as a whole. One would expect to find older and newer neighbourhood units with a slightly differing structure but the overall youthful characteristics remain the same, with a large proportion of young children and young parents, but few in the teenage group and only a small group of single, middle-aged or elderly couples. It was calculated that the proportion of teenagers would have reached Scotland's average by 1966, in the earlier forecasts, but clearly this stage has not been reached.

.. 75-70... ..

.. 70-74 ...

*** 55-59 ***

***** 67-64 *****

***** 55-50 *****

***** 50-54 *****

***** 45-49 *****

***** 50-44 *****

***** 35-38 *****

***** 30-3 *****

***** 28-29 *****

..... 30-31

..... 15 10

N.B.: BLANK SPACES INDICATE VALUES BETWEEN ZERO AND 1/8TH OF ONE PERCENT

See Engmann, 1969.

Source: Sample Census, 1966

... 75-79

***** 70-74 *****

***** 65-69 *****

***** 60-64 *****

***** 55-50 *****

***** 50-54 *****

***** 45-40 *****

***** 40-44 *****

***** 16-78 *****

..... 30-31

..... 25 30

..... 263

.....

.....

N.B.—BLANK SPACES INDICATE VALUES BETWEEN ZERO AND 1/10TH OF ONE PERCENT

See Engmann, 1969.

Source: Sample Census, 1966.

The household structure in Calderwood can likewise be compared with that of the whole of the burgh, and again it is necessary to draw attention to the way that changing policy has caused changes. The household structure is influenced by the availability of accommodation. In the third Annual Report was mentioned the aim of a compact design with half the dwellings to be terraced houses, one-third flats and one-sixth semi-or fully-detached houses, but three years later the proportion of flats to be built had been reduced to a quarter. Throughout, there has been an aim to provide a variety of buildings to suit families of different sizes and income groups including a proportion of managerial-type houses. A group of 38 managerial houses built in Calderwood's second development (Jamieson Drive area) had all been sold by 1960 (Fig.7.2). In the tenth development (Almond Drive area) a group of higher status houses were constructed according to private designs. The Corporation considered that house ownership might give greater stability to the population, especially since a considerable amount of movement both in and out of the town was occurring. In the twentieth Annual Report, for example, it was recorded that 2,183 families, 302 of whom were overspill from Glasgow, had moved into East Kilbride during the year, but at the same time 949 families had left the town and another 578 households had had transfers within the town. Of those who emigrated 228 became owner-occupiers in nearby areas. By 1968 houses could be purchased by the tenants, and selected areas had also been designated as sale areas where houses which became vacant would normally be sold. According to the Valuation Roll 1966-7 for the County of Lanark, Burgh of East Kilbride, Ward 1, privately owned and occupied houses were found primarily in (a) Spean Avenue, Garnock Park, Deveron Road, Almond Drive and Yarrow Park, (b) Jamieson Drive and Tassie Place, (c) a block of flats in Burns Park, (d) a few houses in Maxwellton Avenue. In addition, a number of dwellings in Maxwellton Avenue were rented from someone other than the Corporation. Also, two groups of houses owned by the Police Force were situated in Clelland Place and Semphill Gardens. Forms of tenure in Calderwood approximate those of East Kilbride as a whole, as exemplified by the following table.

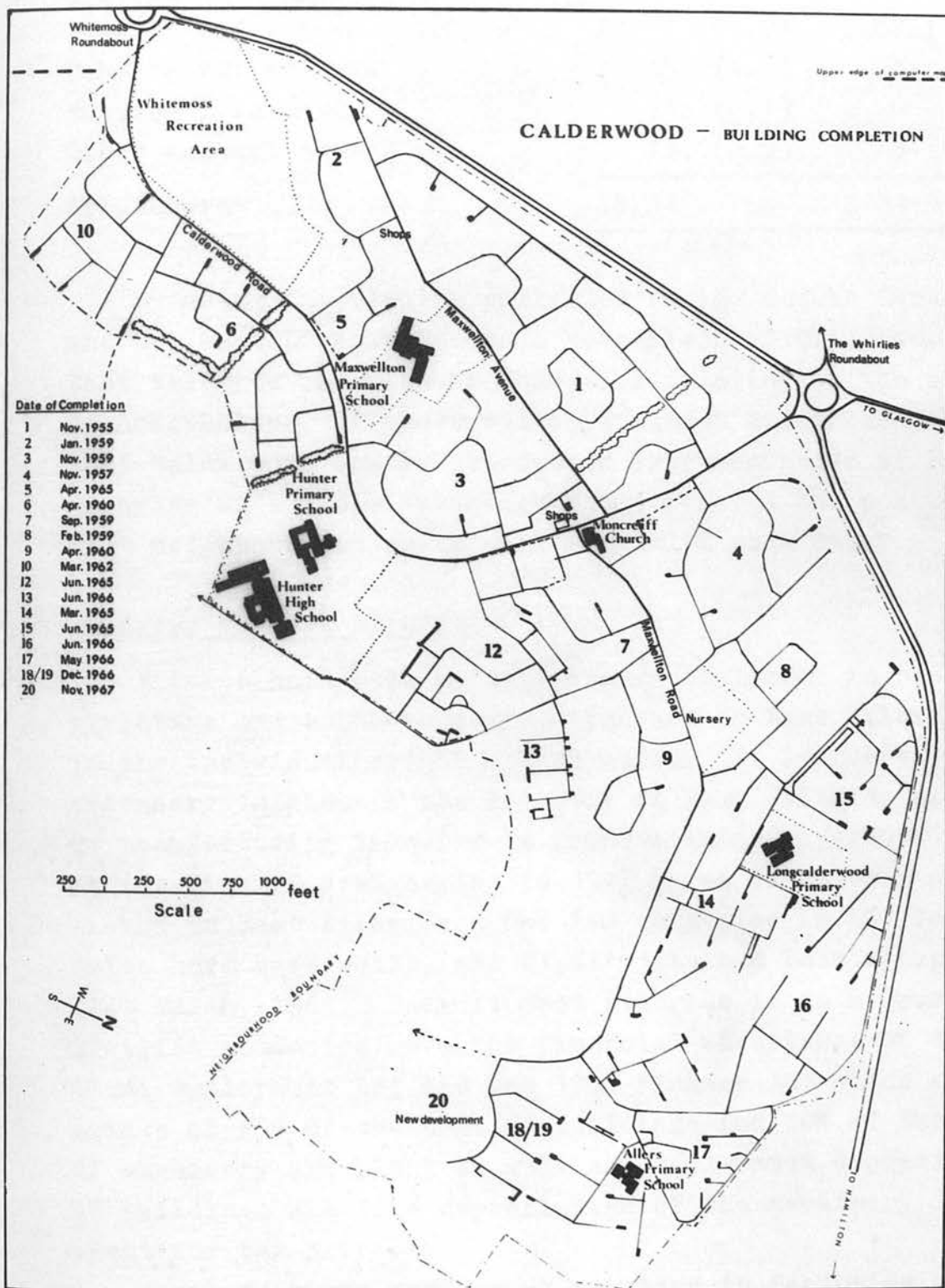


Fig. 7.2

Table 7.2 Tenure of dwellings in East Kilbride and Calderwood (percentages in parenthesis)

	<u>East Kilbride</u>	<u>Calderwood</u>
Owner-occupier	54 (4.2)	17 (5.1)
Renting from local authority or New Town Corporation or Scottish Special Housing Association	12,11 (93.8)	3,07 (92.7)
Renting unfurnished	13 (1.0)	4 (1.2)
Renting furnished	1 (0.1)	-
Other and not stated	12 (0.9)	3 (0.9)
All tenures	12,91	3,31

By using the results published in the Sample Census and the Ward Library Tables a comparison of Calderwood and East Kilbride can also be made with relation to the sizes of households. It shows the significant difference, and that Calderwood can be considered representative of East Kilbride as a whole, although there remains the possibility that neighbourhood units will vary with each other.

Industry in East Kilbride

Efforts have been made to ensure "balance" in both age structure and socio-economic structure in East Kilbride and in the individual neighbourhood units. It is therefore necessary to discuss the industry of East Kilbride although no manufacturing industry is found within Calderwood itself. At the time of designation in 1947 three firms were established in East Kilbride. Now 140 companies in 193 factory units have been built, and 21,511 jobs had been occupied by 31st March, 1968. Because East Kilbride is in a Development District companies have the financial advantages of the Local Employment Act and the 1963 Finance Act which gives grants of 25% of the cost of buildings and 10% of the cost of machinery and plant as well as accelerated depreciation of buildings and free depreciation of the machinery and plant for tax purposes.

Apart from the employment provided in factories on the industrial estates, work is also found in the service industries and commercial enterprises in the town centre

and neighbourhood units. For Calderwood residents the nearest industrial zone is the Nerston Industrial Area located to the north of the town, where a variety of engineering and other industries are established, the largest being Rolls-Royce which started production in 1952 and now employs over 3,500 people. Laboratory equipment, pumps and general engineering, domestic electrical appliances, mining machinery, tools, radio, television and electrical engineering, electric road vehicles, coachbuilding, printing and clothing manufacture are some of the industries found there. J.W. Galloway's factory between the St. Leonards and Calderwood neighbourhood employs about 30 people and specialises in bacon curing and tallow manufacture. The establishment of such a noxious industry in a primarily residential area is not typical of the rest of the town. A proposal to erect small factories and workshops in various neighbourhoods has not been followed in Calderwood.

People working in other industrial areas must travel to College Milton in the north-west, or the Kelvin Industrial Area in the south. At College Milton a variety of activity includes engineering and industries ranging from cloth weaving to cheese distribution. The Kelvin Estate has only one factory established so far, viz. Dictaphone Ltd. which is concerned with the manufacture of internal communications systems. The National Engineering Laboratory which was built on a site at Birniehill near the town centre was established by the Department of Scientific and Industrial Research (now the Ministry of Technology) for research into mechanical engineering problems and demands a high proportion of skilled workers. Other skilled workers in the Scottish branches of Building Research Station, Road Research Laboratory and Warren Spring Laboratory (Atmospheric Pollution Research) are expected to move to Birniehill from their temporary quarters at Thorntonhall. Work at the Scottish Nuclear Research Reactor and the Glasgow University's Linear Accelerator also demands a highly skilled labour force. People employed at the Inland Revenue Computer Centre near the town centre, and forming the nucleus of the initial 1,250 office workers were starting to settle in the town at the time of the survey.

Because the majority of East Kilbride' firms have been attracted from the south of England and the Midlands, with another eight from the U.S.A. and four from European countries, the key workers are frequently in East Kilbride for only the initial period of the industry's development. This adds to the instability of the population and this is particularly marked among the upper socio-economic groups.

As a result of its accessibility to other parts of Scotland East Kilbride has proved attractive to warehousing and servicing industries which employ about two thousand people. P.D. McGovern has estimated that over five thousand jobs are in commercial shops and offices where expansion has been recent, in transportation, administration and in professional and scientific services. He estimated that 27% of East Kilbride's working population is in professional and managerial classes compared with 24% in Stevenage and 11% in Motherwell (McGovern, 1968).

According to the Sample Census, 1966 the figures for the five Enumeration Districts in Calderwood indicate that while 2,65 people work within East Kilbride 2,23 travel outwith the local authority area, that is, 54.3% of the working population works within East Kilbride. The proximity of Glasgow and other neighbouring centres makes it possible for these large numbers of men to work away from their town of residence. East Kilbride's industries continue to recruit many people who do not reside in the town, including people who already live nearby.

Despite the diversity of opportunities in the town Dr. McGovern estimates that half of those who work outwith East Kilbride travel to Glasgow while the other half work in the rest of Lanarkshire and Ayrshire within a radius of ten miles from East Kilbride.

As the Census publications only give the figures for economically active and retired males no conclusions for the population as a whole can be based on the following tables. However the statistics give some indication of the "balance" of the population. The Industrial Selection Scheme operated by the Ministry of Labour has aimed at ascertaining that the jobs in the New Towns go to those who

can make the greatest contribution to overspill. Furthermore, in order to ensure "balance" there has been a policy to discourage further growth of service industries such as the establishment of sales and service depots and warehouses, which have become excessive in relation to the needs of the town as a whole.

Table 7.3 Economically active and retired males aged 15 and over by socio-economic groups

	<u>Lanarkshire</u>		<u>East Kilbride</u>		<u>Calderwood</u>	
		%		%		%
Professional workers	6,30	3.3	68	5.0	18	5.4
Employers and managers	15,20	8.1	1,23	9.1	26	7.8
Foremen, skilled manual workers and own account workers (other than professional)	77,17	40.9	6,17	45.6	1,39	41.9
Non-manual workers	30,72	16.3	3,03	22.4	86	25.9
Personal service workers, semi-skilled manual workers and agricultural workers	33,82	17.9	1,85	13.7	50	15.1
Unskilled manual workers	22,87	12.1	50	3.7	11	3.3
Armed Forces and persons with inadequately described occupations	2,93	1.6	7	*	2	*
Total	188,92		13,53		3,32	

* not calculated because standard error of the rate would be greater than 25%.

Although at a superficial glance there appears to be no marked difference between the statistics of East Kilbride and Calderwood the Chi-squared test shows that there is less than a 95% probability that in the socio-economic groupings the differences are the result of a chance occurrence. The greatest discrepancy comes in the category of non-manual workers which might be explained by the settlement of Calderwood at a time when more of this type of work was being established. A further explanation may hinge on the internal movements that have taken place within the town, initiating a process of segregation.

The difference in structure of socio-economic groups between Calderwood and Lanarkshire is more obvious. Lanarkshire has been taken as a standard for comparison because this is the largest local unit for which figures are available, but it is not representative of the whole of Scotland and is not necessarily considered as having a "balanced" population. The socio-economic structure is determined at least partly by the industrial pattern of the town, but not entirely so in view of the number of people who commute elsewhere to work. It is assumed therefore that the relatively high proportions of non-manual workers and very low proportion of unskilled manual workers are not altogether a result of the Industrial Selection scheme, nor a result of the selection that might take place among housing applicants, especially when it is a simple matter to be placed on the Glasgow housing list. Rents are higher in the New Towns compared with what is expected in the Scottish tradition of low rents for local authority houses and this in itself discriminates against poorly paid unskilled workers. No single simple reason explains the socio-economic pattern that has become established in East Kilbride.

Summary

This description of the Calderwood neighbourhood unit illustrates the extent to which it can be considered as representative of East Kilbride. In this, the third of the five neighbourhood units to be built, houses were first let to immigrants in 1955 and the last development was completed in 1968. It has a small section of the original community and according to the Enumeration District statistics from the Sample Census, 1966 has a population age structure that conforms closely with that of the town as a whole. The shape of the unit is less compact than the southern units but the road pattern, and relative location of shops, schools, churches and playing fields within the unit show similarities with those in other units. Although the size of the population is much larger than that suggested for most neighbourhood units the physical characteristics follow the traditional idea of a neighbourhood unit.

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CHAPTER VIII

GLENROTHES

In Scotland a further regional report comprised a study of Central and South-east Scotland (Mears, 1948). This Report commented on the ill-balance of the employment structure in certain of the areas studied, particularly where there was mining and heavy industry, with the result that frequently women living in these areas had to travel long distances or leave the district in order to find a source of income. Because of this imbalance and also the limitation of certain social factors including the proximity of other communities, the variety of occupations, the availability of social, cultural and health services and the opportunity for recreation, it was suggested that the New Towns Act, 1946 should be applied to meet Scottish conditions. Instead of starting on completely virgin territory the aim was to build a New Town of moderate size, linking it with one or more existing settlements so that the whole would embody a total population large enough to make possible the economic provision of social and industrial facilities on a scale not formerly within the powers of local authorities. A total of 20,000 or 30,000 people were envisaged in each group with, in addition, those living in nearby villages who would benefit from the proximity of the larger settlement. It was felt that a larger town, like those in England with 50,000, would be detrimental to the small well-established communities already existing. Hence the aim was to create "constellations" in which each member maintained its own characteristics.

In order to understand why Glenrothes was regarded as a suitable site for a New Town it is necessary to be aware of the state of the coal industry after the Second World War. The principal reserves of workable coal in Scotland are in the eastern and central section of the Midland Valley and in parts of Ayrshire and Dumfriesshire. The Report of the Scottish Coalfields Committee, 1944 (Scottish Home Department, 1944) assumed that prewar production level would be maintained, but to offset the declining production in

the Central Coalfield there would need to be expansion in South Ayrshire and the Forth Basin. After this Report it became part of government policy to increase the use of other methods of large-scale production of heat, and also to widen the use of coal so that it would be used more in the manufacturing industries, as well as for fuel. The National Coal Board which assumed control of the industry in January 1947 aimed to expand the industry and hence had to recruit miners, but incentive was lacking, especially where modern factories proved a greater attraction than pits with out-dated machinery.

The East Fife Coalfield extending within a triangle formed by Kirkcaldy, a point just south of Leslie, and Leven, had large measures of coal, thus permitting mining to be planned on a long-term basis. It was calculated that as many as 400,000 (a net increase of 200,000) people might be attracted to Scotland's eastern coalfields, and it was hoped that most of this number would emigrate from the Scottish Development Area in the west rather than from rural localities. Of this number the Scottish Coalfields Committee estimated that 7,750 men would find employment in large new sinkings, but as a result of the closure of some local pits only 5,250 additional miners would ultimately be required, and that this expansion would be achieved by 1975.

The Regional Survey and Plan for Central and South-east Scotland stated that it was necessary to accommodate additional population within a convenient distance of old and new pits. If land near the pitheads which was usually liable to subsidence were used, it would have to be made sterile, thus making vast quantities of coal unattainable.

Finally with large-scale building proving inadvisable due to the risk of serious subsidence caused by the extraction of large reserves, three groups of new houses for this area were recommended, at Kirkcaldy, Kennoway and Leven, and Markinch-Leslie. For those who would work at the Rothes and Earlseat pits, land on either side of the River Leven between Markinch and Leslie was considered appropriate for new homes for 3,700 miners and associated population who,

with the existing population of 6,000 would make a total population of about 26,000. People from Thornton, where damage from subsidence was increasingly severe, were also to be rehoused in this "constellation" so that the population of the whole group might eventually reach 35,000.

In order to avoid an unbalanced economy based entirely on mining, alternative forms of employment were recommended, and it was expected the additional industries would attract other families as well as supporting miners' relatives who would otherwise be compelled to seek work beyond the vicinity of their homes. The fear that new mining communities would reproduce the unattractive, ill-balanced nature of former mining villages led to an emphasis on "balance" during the planning of the town, and the stipulation of a minimum ratio of one miner to nine people.

Because of the changing fortunes of the area and particularly after the closure of the Rothes Colliery in 1962, the policy of development has changed, and so has the initial target population of 32,000. The target figure was indefinite but in the second Annual Report mention was made of the estimate given by the Secretary of State, of a population not likely to exceed 18,000 within the following 20 or 25 years, although the plan was currently being designed to accommodate 23,000 south of the River Leven. The target has subsequently been raised twice, first to a total of 55,000 and then in 1963 to 75,000 with allowance for natural increase up to about 95,000. The present target population according to the Interim Planning Proposals, no longer rests on the development of the town primarily to meet the needs of an expanding coalfield, but to play a more important industrial role with greater diversification. Hence although the following statement from the first Annual Report of the Glenrothes Development Corporation expresses the purpose of the town its development must be considered in the light of changing circumstances.

The town's purpose was, "To meet the needs of the expanding coal industry in the County by providing homes for the miners who will be employed in the neighbouring

Roths Colliery, now in the course of construction, and in other collieries. In order to give effect to the aim of having a balanced community, the detailed planning of the New Town will be based on a proportion of one miner in eight or nine of the population. In this way, a repetition of the faults to be found in mining communities in other parts of the country will be obviated" (Glenrothes Development Corporation, First Annual Report, 1950).

Until the end of the 1950s coal mining was considered as the basic purpose of the town with houses being built for miners working within ten miles of the town.

The site of Glenrothes covering an area of 5,730 acres in the parishes of Markinch, Leslie and Kinglassie, and straddling the River Leven and part of the Warout Ridge to the south, was ultimately approved by the Secretary of State for Scotland in 1948 (Scotland, Department of Health, 1948). Its site, centrally located in Fife, is further away from Scotland's principal cities than the other New Towns. Glasgow is 58 miles, Edinburgh 30 miles and Dundee 23 miles from Glenrothes. Kirkcaldy, with a population of over 50,000, is seven miles from Glenrothes, while adjoining or near the designated area are Leslie, Markinch, Star, Coaltown of Balgonie, Milton of Balgonie, Thornton and Kinglassie. To the west are the declining coalfields of West and Central Fife, while some of the small coastal towns along the Forth serve as seaside and tourist areas. Glenrothes' position between the Forth and Tay Road Bridges is of limited advantage while the main roads are so indirect.

Most of the area is covered by glacial deposits and has topographical variety, the altitude varying from about 200 feet to 550 feet. It extends from hill land and rough moorland in the north through a more sheltered and warmer area covered with small gravelly hillocks, to the River Leven with its steep banks and flat riverside meadows or carses, then further south across a north facing shelf of relatively flat open land, and finally to a rather exposed featureless area with a southerly aspect and sloping towards Thornton.

The original master plan for the town was based on three neighbourhood units, one to the north of the river and two to the south. Within each neighbourhood unit were a number

Town Plan (see street map in pocket at back of volume)

The boundary of the town has little connection with any natural physical features. To the east, part of the Aberdeen-Edinburgh railway is beyond the designated area. The Burghs of Leslie and Markinch form the boundaries of the designated area to the west and the east respectively, but other than these the boundaries are less distinct.

The original plan of the town was partly dictated by the proposed extent of the underground workings of the Rothes Colliery, but since its closure this has assumed less significance, and some land to the south can now be developed although 28 acres in the south-east of the designated area are still liable to subsidence. Old workings dating from the seventeenth century are known to exist north of the river, some of these being unrecorded, and even now they cannot automatically be regarded as safe without testing, although light building is considered safe where a dolorite still overlies the coal.

The plan was also influenced by the location of existing industry. In the past the regular supply of flowing water had been favourable to the industrial location of flour and textile mills and for the bleaching of cloth, but in the nineteenth century these largely gave way to paper mills of which there are still three in the valley. The Draft Designation Order thus stipulated, "Land adjacent to the River Leven and land adjoining the Leslie branch railway line should be developed for industrial purposes" (Scotland, Department of Health, 1948b, p.9). The area adjacent to the river became part of the Queensway Industrial Estate; and a second industrial area that could take advantage of the railway line on the south side of the Warout Ridge and thus separated from the residential areas, was planned.

Thus the area planned for residential development was limited partly by the extent of past and future coal workings, by the position of the railway line, by the area set aside for industry and by the nature of the rough ground to the west (Smith, 1967).

The original master plan for the town was based on three neighbourhood units, one to the north of the river and two to the south. Within each neighbourhood unit were a number

of precincts and the earlier plans showed five in the West Neighbourhood, three in the East Neighbourhood and two in the North. Each of these was to be capable of supporting and focusing on a primary school located so that younger children would be free from dangerous traffic, and also including a small group of shops selling convenience goods necessary to meet the daily needs of the inhabitants. Seven of these precincts have been built or almost completed. It was anticipated these residential units would consist of approximately one thousand dwellings (3,500 people) which would give the optimum number for the primary school under present conditions. They would also permit segregation of pedestrians from vehicular traffic for people walking to the school and centralized amenities. Another advantage of building precincts was the provision of a manageable building programme with only a short time gap between completion of the first and last houses so that the whole precinct would grow as a coherent structure. Furthermore it was thought that a unit of this size would be sociologically small enough to enable a community spirit to evolve quickly and thereafter provide a basis for early inter-precinct and township activities.

Hence the basis of the town's development according to Phase 2 of the Interim Planning Proposals was a two-level approach: the precinct level with commercial, cultural and entertainment facilities; and the town level with facilities related to the overall requirements of the town. Recent planning proposals have reduced the number of shopping areas within the precincts due to the increasing mobility of the population, but the basic principle has been retained. Glenrothes has developed much more slowly than East Kilbride and revised plans have consequently been more easily implemented.

The town's first development took place on the relatively open north-facing shelf between the south bank of the River Leven and the Warout Ridge. At the time of the survey only precincts in these southern neighbourhoods had been completed, and the population in March 1968 was estimated at 24,210. The Corporation's policy was to encircle the area planned

as the town centre after the Woodside precinct in the east had been completed, the aim being to emphasise the shopping, business and commercial centre. Thus, Woodside was followed first by the Auchmuty precinct and then by South Parks and Macedonia, the spread being in a westerly direction. Future development is expected to round off the town to the north and south with only minor expansions west and east, giving it a more compact shape.

Prior to designation there were already 118 houses in the village at Woodside and a further 101 houses at Cadham and Rothes. In 1948 the population of the designated area included 760 outwith the built-up areas and 340 within the built-up areas. By October 1968 the population was distributed in the precincts according to Table 8.1.

Table 8.1 Houses and population in the precincts of Glenrothes

	<u>Houses</u>	<u>People</u>
Woodside	1,109)	4,915
Alburne Park	45)	
Auchmuty	1,670	6,121
Town Centre	13	67
Rimbleton	1,289	4,286
South Parks	835	2,899
Macedonia	937	3,237
Tanshall	900*	2,279
Caskieberran	697 ⁺	1,089
		<u>24,893</u>

* including 251 new unlet. ⁺ including 273 new unlet.

[Source: Glenrothes Development Corporation.]

The policy of house letting has been influenced in two major ways. First it was partly determined by the numbers required by the National Coal Board. In the eighth Annual Report the policy is explained whereby not more than half of the houses in each block of flats would be let to miners, provided this did not interfere with the arrangements under which the National Coal Board had an opportunity

to make the maximum possible use for transferred miners of all houses becoming available for letting. It proved impracticable to provide for maintenance of a ratio of one miner in nine in all parts of the town at all stages of its development. Thus it was left open to the Corporation, in the course of time, to secure a better distribution of miners and their families by offering exchanges or relets in other parts of the town if this was welcomed by those concerned. During the first decade of the town's development transferred miners nominated by the National Coal Board had the first claim to houses that became available, and this priority group was followed by persons engaged in local industry and service industry, then building workers and finally other workers who wished to reside in Glenrothes. The eleventh Annual Report refers to a change in policy because of reduced estimates of the forward demand for coal in November 1959. Furthermore the manpower for the build-up of mining in East Fife was to be drawn from Central Fife so immigration from Lanarkshire was expected to diminish substantially compared with earlier forecasts.

However, prior to this the second major feature influencing house letting had been established with recognition of the part overspill from Glasgow might play in populating the New Town. This came as a direct result of the Housing and Town Development (Scotland) Act, 1957 which authorized Development Corporations to act as receiving authorities in respect of overspill population from the areas of local authorities whose reserves of land and availability of housing accommodation were restricted. It was considered that the transfer of some people and industry from Glasgow might help to balance Glenrothes' population, so agreement was reached that Glenrothes would receive 1,800 approved nominees from Glasgow by 1965, provided they obtained employment in Glenrothes. Hence while the number from Glasgow increased, depending on economic expansion and the attraction of new industries, the number of miners would diminish.

By the time the sixteenth Annual Report was written in 1965 the following priorities for a dwelling in the New Town had been established:

709 664 1,301 1,322

- (1) Applicants in full-time employment in the town.
- (2) Relatives - parents or son or daughter already in the town.
- (3) Applicants employed in the Leven Valley (Leslie and Markinch).
- (4) Applicants employed at Thornton Railway Yard - particularly redundant railwaymen transferred from other areas.
- (5) People employed in service areas within the town.
- (6) People employed at Westfield Opencast Site and Lurgi Gas Plant.
- (7) Building trade labourers.

More recently applications have been invited from any teachers working in Fife and from ex-service personnel.

Although these stipulations are made, there are at present more houses than applicants, so the list of priorities is not in force. When the number of applicants demands it, the use of a list of priorities might influence the population structure of the area being settled at that time. Table 8.2 illustrates changes that have taken place in housing allocation during the last four years.

Table 8.2 Housing allocations to new immigrants in Glenrothes, 1964-8

	<u>1964-5</u>	<u>1965-6</u>	<u>1966-7</u>	<u>1967-8</u>
a. Transferred miners - outwith Fife	-	100.0	100.0	100.0
b. Transferred miners - Central and West Fife	-	-	-	-
c. Glasgow overspill	19	14	26	6
d. Engaged in local industry	375	423	656	459
e. School teachers	31	29	56	55
f. Building trade workers	108	124	184	68
g. Relatives category - excluding second generation families	127	63	98	43
h. Relatives category - second generation families	-	53	65	69
i. Ex-service personnel	-	-	20	24
j. Staff - managerial and admin.	27	36	52	49
k. Others	22	122	144	40
Total	709	864	1,301	1,222

[Sources: Annual Reports of Glenrothes Development Corporation

The effect of the housing policy contrasts markedly with East Kilbride where the majority come from Glasgow. In Glenrothes the proportion of people from any one town is no greater than 12%. Over half the immigrants originated in Fife. was developed first because of the availability of services and the presence of new buildings prior to the

Table 8.3 Origin of immigrants

	At 31.10.67	At 1.7.68	At 1.1.69
Glenrothes	8.7	9.4	9.0
Constellation (Leslie, Markinch, Kinglassie)	11.7	11.0	10.6
Kirkcaldy/Dysart	10.9	10.7	10.8
Levenmouth	6.1	6.0	6.0
Cowdenbeath-Lochgelly District	5.4	5.8	6.0
Dunfermline and south-west Fife	4.3	4.5	4.4
North Fife	7.9	7.8	8.0
Lothians, Stirling, Clacks.	8.0	8.4	8.2
Angus, Perth, Kinross	7.6	7.4	7.7
Glasgow overspill	4.9	4.5	4.3
Glasgow others	5.5	5.1	5.5
West of Scotland	6.0	5.9	6.0
Aberdeen, Banff	3.0	3.1	3.1
Highlands, Borders, Islands	2.6	2.6	2.6
England and Wales	7.0	7.4	7.7
Abroad	0.4	0.4	0.6
	100.0	100.0	100.0

[Source: Glenrothes Development Corporation.]

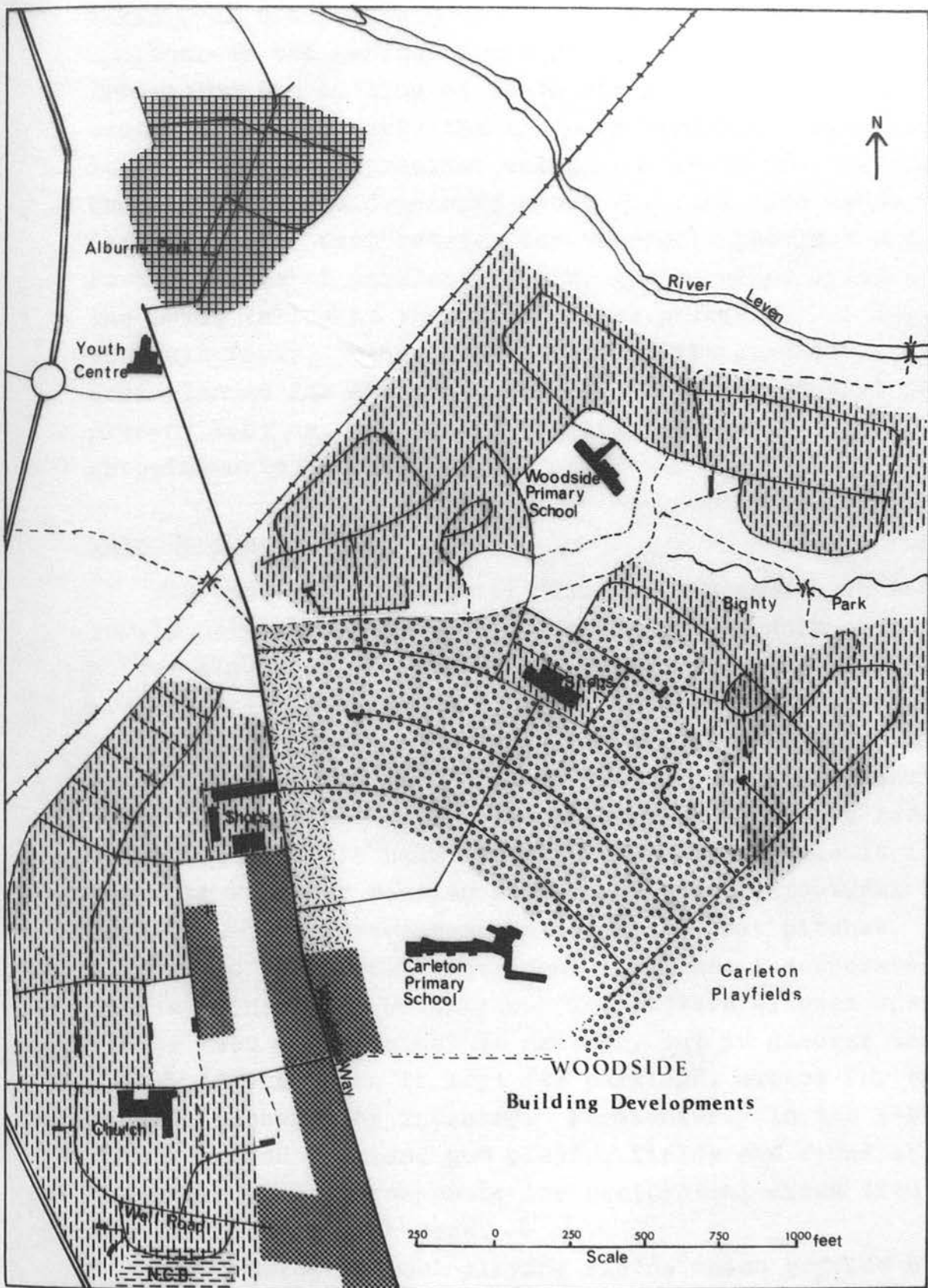
A review of reasons for people leaving Glenrothes carried out by the Glenrothes Development Corporation showed that during the year ending August 1967, 576 tenants terminated their leases, the major reason given being because of a change in employment. A significant proportion leave the town to buy their own houses outside the town, and as this tends to be those in the executive and upper middle classes it could have an effect on the socio-economic balance. The "five o'clock executive exit" to outlying areas is also concerning the Development Corporation.

WOODSIDE AND SOUTH PARKS

The two precincts studied in detail are in the two southern neighbourhoods. Woodside on the eastern edge of the town was developed first because of the availability of services and the presence of new buildings prior to the establishment of the Development Corporation. The Corporation has aimed to provide links between the central area and Woodside and to prevent any feeling of detachment. One hundred and eighteen old houses existed in the area before designation, and a few of these still stand in Woodside Walk near the centre of the precinct. Also before designation Fife County Council had commenced building a post-war scheme of 308 houses each consisting of four or more apartments. This development was completed in 1953. The Corporation aimed to balance this by adding a number of smaller dwellings. A group of 250 miners' programme houses were also allocated to the Corporation, but as the technical staff had not been appointed 132 of these were constructed by the County Council in the area between the County Council development and Bighty Burn which forms a physical divide between the two (Fig.8.1).

Woodside has two distinct parts; the major area lies to the east of the A92 which leads to Kirkcaldy, and to the south-east of the Leslie branch railway line. The smaller area referred to as Alburne Park, is further north on the other side of the railway line. Socially this latter area is set apart with a few private houses occupying more extensive grounds, 18 houses for Corporation staff and eight houses for National Coal Board officials.

The Woodside Service Industry site west of the A92 is not considered as part of the Woodside residential precinct. The boundary of the precinct is therefore a main road in the west, the River Leven in the north, open land with woodland and parkland in the south-east, and the Eastfield Industrial Estate to the south. This industrial estate had not yet been fully developed so at present a small wedge of open countryside lies between the existing industrial buildings and the neighbourhood unit. At the time of the



- | | | |
|--|--|--|
|  Fife County Council
Pre 1939 |  Old
Village |  National
Coal Board |
|  Fife County Council
Post 1945 |  Glenrothes
Development
Corporation |  Chiefly privately
owned |

Fig. 8.1

survey temporary Corporation Offices were situated at the southern edge of the precinct, but the Corporation has since taken over Glenrothes House at the town centre.

Whereas the general shape of Woodside is approximately triangular the outline of South Parks is more rectangular. South Parks Road marks the southern border and separates it from Rimbleton precinct which is also in the West Neighbourhood, and was developed about the same time as South Parks. In the west between the Macedonia precinct and South Parks a wedge of parkland adjoins the parkland lying along the Leven Valley to the north of the precinct. To the east of South Parks, Roth's Road separates the precinct from the area planned for the town centre. The adjacent part is at present kept as open space, playing fields and a small shopping unit.

Open Spaces in Glenrothes

The open space characteristics of the town have been partly determined by topographical features such as the wooded slopes of the Leven Valley and areas where slopes are too steep for economic building or liable to subsidence through coal mining. For example, a golf course has been established at Goatmilk Hill on 164 acres of land unsuitable for building. The grounds of Balbirnie House have been set aside for a public park covering 220 acres, while it is hoped to keep the mansion house for its architectural interest. Local requirements for kick-about pitches, children's playgrounds and local parks are incorporated within or near the precincts. The pattern of open space varies from one precinct to another, but in general the valley of the Leven is kept for parkland, except for the section occupied by industry. Particularly in the West Neighbourhood, parkland and playing fields are found around the periphery, and separate the residential areas from the Viewfield Industrial Zone.

In Woodside, school playing fields which provide a major part of the playing fields associated with Auchmuty Secondary School are found in the north-west separating Alburne Park from the rest of the precinct. All school

playing fields are linked with peripheral parkland in Woodside; a wedge of open space stretches along Bighty Burn from Woodside School to link with the parkland along the River Leven; the Auchmuty Secondary School playing fields also link with the River Leven parkland; and the playing fields of the Carleton Primary School are linked with public playing fields in Carleton Park which is at present on the periphery of the built-up area in the south-east and includes two football pitches, one cricket pitch and a pavilion.

In South Parks, apart from the parkland along the river in the north forming a section of the town park, there is as in Woodside, a school playing field in a central location, but this one has no direct link with a public park. Glenrothes High School in the west of the precinct, is adjacent to the town park that lies to the north.

In most precincts there is in addition to the school playing fields, an area of public playing fields adjacent to one of the schools, so that although it is not the policy of Fife County Council to permit the use of primary school fields by the public, the public playing fields are nearby for the use of the schools. From the point of view of access to open space neither South Parks nor Woodside is entirely representative of all precincts because both of these are located adjacent to parkland along the River Leven. The more southerly precincts are nearer the open space that surrounds the town, but the future plans keep only a limited area of open space and woodland between the present and proposed precincts and industrial zones. The plan for the area north of the river is similar to that for the south, with public playing fields adjacent to school playing fields and an almost continuous area of parkland around the periphery of the neighbourhood.

Because the responsibility for provision of playing fields is with the District Council rather than with the Development Corporation the provision of such facilities is not easily co-ordinated with the construction of houses in any one area. It was not until May 1958, ten years after designation, that Dovecot Park in the Auchmuty precinct was declared open. This park with two football pitches, a

Glenrothes and the remainder of the Central Belt and the

cricket pitch, tennis court, bowling green, pavilion accommodation, children's playground and a rose garden was established by Kirkcaldy District Council and serves the East Neighbourhood. Since 1961 Glenrothes District Council has assumed responsibility for children's playgrounds and the provision of slides, swings, seesaws and other equipment, and playing fields. Five small playgrounds and kick-about areas are scattered through South Parks, two of them being equipped to date; and in Woodside three similar spaces are in use.

For the benefit of the whole town the Coal Industry Social Welfare Organization (CISWO) has provided a bowling green and two all-weather tennis courts and an adjacent communal building on a site adjoining the town centre. A further temporary playing field is being used on land set aside for expansion of the town centre, but the major facilities for sport are planned on a site south of Auchmuty near the Viewfield Industrial Estate where a technical college is being built. Part of the College will be an Institute of Physical Recreation with playing fields, a sports hall and swimming pool.

Communications in Glenrothes

In the guiding principles of Phase 2 of the Master Plan it is considered necessary for the plan to provide a complete answer to the internal problems of communication and transportation, and in this motor age, the maximum facility for the encouragement of the art of walking. At the same time it was thought that transport must be subservient to the correct location and scale of land uses, both within and outwith the designated area, but that land uses must be distributed so as to effectively link one with another and at the same time minimise major road and other service costs (Williams, 1966). With this in mind it has been the policy of the planners to locate large traffic generators such as industry, in a way to utilise the major road network without impeding the free flow of town or through traffic.

Many of the Annual Reports, such as the eighteenth, stress the need for improved road connections between Glenrothes and the remainder of the Central Belt and the

south. The New Town was originally sited in relation to the coal measures, but since the change of emphasis from coal mining to general industrial development communications with other centres have assumed greater importance. At present the main routes leading southwards to Kirkcaldy and westwards towards Cowdenbeath are considered far from adequate. The limitations of the rail system cause the road network to have increased significance. The need for an East Fife Regional road that would make Glenrothes a focal point within the Fife Growth Area has been stressed by the Corporation and in May 1969 its construction was ratified. As with the plan for East Kilbride the phenomenal increase in car ownership in the town was not foreseen, and this adds to the inadequacy of the present communications network.

The A92, being the main north-south route from Cupar to Kirkcaldy, originally passed through the village of Woodside. It has since been diverted so that it is a freeway forming a boundary between Woodside and Auchmuty and serving both the Eastfield and Queensway Industrial Estates. The main east-west road is the A911 between Markinch and Leslie. A second east-west route is the B921 in the southern part of the town, and at present of somewhat less importance.

In the Planning Proposals presented in 1966 the road network is a theoretical grid. The A911 forms the base of the northern block and the top of the southern block. The northern block is almost triangular with the A92 on the east side, the A911 on the south side and a new road is proposed from Balfaig to Leslie Parks on the north-west edge. The southern block has the A92 on the east, the A911 in the north, a road planned approximately along that of the B921 in the south, and a new road is to extend from Leslie Parks across the Leven Valley, through the reservation between South Parks and Macedonia, across the Viewfield Estate to join the B921 at East Finglassie. The sides of these two blocks are to be freeways and the highest in the hierarchy of roads.

The second grade of road provides the boundary, be it a division or a link, between residential precincts, and access ways to the freeways. In Woodside, Woodside Way

which passes through the precinct along the line of the original A92 provides a link with the major road system both in the south where it joins the B921 near the East-field Industrial Estate, and further north at a roundabout located near the south-west corner of Alburne Park where it links the precinct to the new A92. In South Parks the second class road does not enter the precinct. South Parks Road forms the southern boundary of the precinct and joins Rothes Road, the eastern boundary, at a roundabout at the south-east corner of the precinct. Rothes Road joins, in the north, the Leslie Road which ultimately leads to the A911, and in the south it links with the B921.

The relationship of the precincts and their road patterns, to the town centre needs to be considered. Roads leading to the town centre are either part of the major grid or secondary routes. From the northern end of the Woodside precinct near Alburne Park Queensway leads directly to the town centre by a route that goes between the Queensway Industrial Estate and the grounds of the Auchmuty Secondary School. People in the southern part of the precinct find it more direct to go along Woodside Road which winds through Auchmuty before reaching the town centre. A footpath from the eastern side of Woodside enables pedestrians to take a direct route through residential parts of both Woodside and Auchmuty to the town centre.

For people in South Parks, North Street leads directly from the eastern part of the precinct to the town centre while South Parks Road and Church Street lead directly to the south side of the town centre, these roads forming boundaries with other precincts so that neither pedestrians nor motorists from South Parks are likely to pass through any other residential precinct en route to the town centre in the way that Woodside residents might.

A further difference in road patterns between Woodside and newer parts of the town is evident. Nine minor roads form junctions with Woodside Way whereas in South Parks there are only three minor roads leading into the precinct over an equivalent distance. The plan of the West Neighbourhood has been based on a modified version of the Radburn

via Woodside Road, to the town centre, and to Queensway.

system of traffic segregation which aims at a vehicle-free footpath system linking the primary school, church, local shops and playgrounds of each precinct with the neighbourhood centre. In South Parks this has not been completely achieved although a number of minor roads with culs-de-sac leading from them help to keep faster traffic away from the houses.

It is recognised that where major roads are emphasized in the network there is a danger that the town structure becomes reduced to a number of tightly knit cells, each entirely independent of the others. To prevent this from happening the planners of Glenrothes have attempted to promote social links between housing units by developing strong pedestrian interconnection between the precincts, and establishing a strong footpath system to the town centre and the town park. The footpaths through the town park are expected to provide a main pedestrian approach way from the Northern Neighbourhood unit and to join up with the general network of pedestrian ways south of the river. A physical link between the New Town and the neighbouring burgh of Markinch was made in 1954 when a new footpath and footbridge over the River Leven were constructed on the eastern extremity of the Woodside precinct.

Neither Woodside nor South Parks can be considered truly representative of the road or footpath patterns throughout the town. Rimbleton has a pattern akin to that found in South Parks, but Macedonia has one major ring road with numerous culs-de-sac leading towards the centre. Tanshall and Caskieberran likewise have an emphasis on a pattern of culs-de-sac and the segregation of pedestrian and vehicular traffic. Woodside's plan does not show the result of this principle. Only Woodside and Rimbleton have footpaths leading to the neighbouring burghs.

The bus services of the town are inevitably affected to some extent by the road pattern. At the time of the survey many buses that served the town did not originate in Glenrothes, and there were no purely internal services. Bus services in the town are run by W. Alexander and Sons (Fife) Ltd. Woodside lies on the route of the Dunfermline-Leven service which links the southern part of Woodside via Woodside Road, to the town centre, and to Queensway.

There are only eight services a day in each direction, plus five extra journeys during weekends in the summer. On the Glenrothes-Markinch route which goes via Tanshall Road East (Huntly Drive) Caskieberran Road, Rothes Road, Church Street, Woodside Road, Coaltown Road End, hourly from Monday to Saturday, Woodside is linked with the south-western precincts. Both South Parks and Woodside are either traversed or touched by several services. The buses from Kirkcaldy to Leslie go via Woodside Way, Queensway, the town centre, Church Street, Rothes Road and Leslie Road. From Kirkcaldy to Glenwood School the buses go via Woodside Road, Warout Road, Rothes Road, Church Street, the town centre, Church Street, Rothes Road, Napier Road, South Parks Road. This is the only route that actually runs through South Parks precinct. A second route followed by buses between Kirkcaldy and Glenwood School follows Woodside Way, Queensway, Church Street, South Parks Road and Roxburgh Street (Macedonia). These services to and from Kirkcaldy are fairly regular, buses leaving approximately once in three-quarters of an hour.

Routes between (a) Leven and Leslie, (b) Dunfermline and Cupar, and (c) Leven and Stirling, all go through Glenrothes via Markinch Road End, Woodside Way, Woodside Road, Church Street, Rothes Road and Leslie Road, each running at approximately two-hourly intervals.

The Glenrothes-Edinburgh buses go from the town centre once every two hours on Saturdays, but only pick up passengers at the centre.

It is significant that nearly all buses pass through the town centre at some stage in the journey. Two buses a day on weekdays running between Kirkcaldy and Cupar pass through Woodside only, and there are also a few very limited services, for example from Kirkcaldy to Glenlomond Sanatorium, passing through Woodside three times a week. A special bus for the benefit of shoppers and people visiting relatives was running to Glasgow on Saturday mornings and returning on Saturday evening, at the time of the survey. Otherwise connections with buses to Glasgow normally have to be made in Kirkcaldy.

Use of the Leslie Branch railway line is limited to goods traffic, there being no passenger station in Glenrothes. The nearest passenger station is at Markinch on the Aberdeen-Dundee-Edinburgh line, but few trains stop because of difficulties caused by the gradient of the line. Consequently rail journeys are more frequently made from Kirkcaldy. Passengers using public transport are therefore obliged to rely primarily on bus services for journeys both within and outwith Glenrothes, and the routes they take influence the frequency of contacts with other places.

Shopping Facilities in Glenrothes

As shops can provide a focus of interest for residents, the location of shops could have a significant influence on the extent to which a precinct or a neighbourhood unit becomes a neighbourhood. As the stage of the town's development helps to determine the extent of shopping facilities in an area it is not surprising that a contrast exists between South Parks and Woodside.

Woodside Village originally had little in the way of shopping facilities, so when the New Town was designated the nearest shopping areas were Leslie and Markinch. As the town has developed and the shopping facilities increased, the place of Glenrothes in the hierarchy of the region's towns has changed so that instead of the inhabitants relying on other centres for their requirements Glenrothes has become a centre serving the population of other nearby communities. However, several centres still prove attractive to shoppers from Glenrothes. The distance from Perth, Edinburgh, Dundee, Kirkcaldy and even Glasgow is not the most significant factor determining whether expeditions are made to these regional centres. For many people it is not so much the time taken to travel, but the cost of reaching them that is important.

A three-tier hierarchy of shops has been planned in Glenrothes. The first is the town centre which is located in the middle of the designated area and is planned to serve the whole town and sub-region with durable goods and services as well as a limited amount of convenience goods,

particularly for those employed in the central area and those passing through the town centre on their way to and from work. It is also expected that it will continue to serve wholly, the needs of those in Auchmuty and those in the easterly parts of Rimbleton and South Parks. Like East Kilbride the town centre is planned to provide civic, cultural, commercial and recreational facilities.

The second kind of shopping facility will be found in each residential neighbourhood unit. It has proved insufficiently economic to place groups of shops in every precinct. These neighbourhood centres will supply chiefly convenience goods with only a limited provision of smaller durable goods and service facilities. One of these groups is planned for the West Neighbourhood and will include fourteen shops, sixteen maisonettes, and a branch library, as well as having a clinic, a petrol station, hotel and public house nearby. This centre is planned to serve people living in Macedonia, Tanshall, Caskieberran, Newcastle and the western parts of South Parks and Rimbleton. In keeping with the aims of the plan there will be segregated pedestrian access ways, access roads and parking space. However, at the time of the survey the shops serving the South Parks precinct and other precincts of the West Neighbourhood were temporarily found in Rothes Road at the south-west corner of the land set aside for the town centre. Here ten shops were opened early in 1961 to meet the needs of the early residents in the West Neighbourhood, and will be closed down when the new centre is built on South Parks Road.

The building of the town centre could not be justified until a certain number of houses had been completed in and around the town centre, so in the interim period residents in Auchmuty and Woodside depended on the Woodside shopping centres and van services. The first group of shops in Woodside was opened in the summer of 1952 and stretched along one side of the street in Bighty Avenue. It consisted of seven shops including a large self-service, co-operative retail grocery, as well as four flats and three terraced houses at each end of the block. A dentist's surgery was also accommodated in the unit but is no longer in use.

A second shopping centre about 500 metres from the first, includes twelve shops with five maisonettes and eight flats above the shops, and a community hall seating 250 people. The buildings surround three sides of a paved courtyard which is reserved for pedestrians. A kiosk was opened less than two years later, for the sale of tobacco, newspapers and confectionery. The branch library in the centre has replaced a mobile library service. At the rear of these shops is a very limited space for off-street parking.

The third level of shopping facility consists of corner shops found singly or in pairs in each precinct. These supply only a limited range of convenience goods and it is only since the survey that one of these was built in South Parks near the school. Macedonia, Rimbleton, Auchmuty and Caskieberran all have corner shops, but Woodside does not.

A shopping survey conducted by research workers in the Glenrothes Development Corporation in 1967 gave some indication of the extent to which these local groups of shops were used and the extent to which those interviewed shopped elsewhere. Unfortunately the results do not indicate the area of residence of the shoppers so they are not all directly relevant to this work. It appeared that the Woodside shopping centre, even with its greater variety of shops, attracted people less frequently than the Bighty Avenue shops. Several explanations might be given for this. Both a co-operative grocery and a butcher are located in Bighty Avenue, but neither is found in the Woodside shopping centre. Also, the Bighty Avenue shops are more centrally located in Woodside. However, Woodside shopping centre provides services and has shops selling convenience goods that attract people to the area once or twice a week. The results showed that many of the people using Woodside also used Bighty Avenue shops and many shopped regularly in Kirkcaldy. Shopping trips to South Street were infrequent but this can be accounted for by the proximity of the town centre and the limited variety of shops in South Street. This evidence is supported by the fact that more people at the South Street shopping area visited the town centre four or more times a week than did shoppers from Woodside; and

a smaller proportion still from among those interviewed at the Bighty Avenue shops visited the town centre frequently. Only 3.2% of the shoppers interviewed in South Street compared with 17.2% in Woodside and 19.3% at Bighty Avenue visited the town centre less than once a week.

The use of mobile shops has been important in all of the New Towns, to the extent that in the opinion of some it has hindered the growth of shopping areas. In the survey referred to above, mobile shops were used by people in all parts of Glenrothes. Of those shopping in Bighty Avenue and South Street approximately 45% said that they did not make regular use of vans while 55% of those in the Woodside shopping centre seldom or never used them. Where mobile shops are used very frequently the shopping centre is less likely to become an important social focus.

Along with shopping centres it was originally planned that a clinic should be built in each neighbourhood and a health centre which would be the responsibility of the Scottish Home and Health Department at the town centre. In 1962 a health clinic was built in the Auchmuty precinct (Russell Square) and more recently a clinic has been established in South Parks Farmhouse. Of the two group practices, one situated in Cos Lane near Woodside Road (Auchmuty) serves the East Neighbourhood, while the other in Scott Road in South Parks serves residents in the West Neighbourhood. The nearest general hospital is in Kirkcaldy, seven miles away.

Schools in Glenrothes

In Glenrothes the planning of precincts was envisaged in such a way that each precinct would be served by one two-stream primary school catering for 680 children between five and eleven years and two nursery schools, all of which could be reached without the need to cross a main road. The primary school could therefore prove a more important focus especially if it is centrally located as it is in South Parks. In Woodside two separate school buildings are used. The building in the northern part known as Woodside School is at present used for five to seven year olds, but

will later become a nursery school when the bulge in the infant school population subsides. The older primary school children go to Carleton School in the southern part of the precinct.

According to information given by the Glenrothes Development Corporation about 10% of the population is Roman Catholic and these children attend St. Paul's Roman Catholic School in Rimbleton precinct while those desirous of a secondary education at a Roman Catholic school must travel to Kirkcaldy.

Three secondary schools are found in Glenrothes and at the time of the survey they had not become comprehensive. The school that a child attended was partly dependent on the results of an examination although children living in the West Neighbourhood had the option of attending Glenwood Junior High School irrespective of their results. A move towards the West Neighbourhood, of families anxious to ensure children went to Glenwood Junior High School rather than Auchmuty Secondary School, was discernible. In future the change in types of schools as well as the raising of the school leaving age is bound to have an effect on the way school buildings are used. Auchmuty Secondary School is situated in the east of the Auchmuty precinct near the A92 so that it is adjacent to the Woodside precinct. These two precincts, at present forming the East Neighbourhood will ultimately have the secondary education of their children catered for by this school. Because of the unbalanced nature of the population Auchmuty Secondary School accommodated primary school pupils when it was first occupied in 1956.

Glenwood Junior High School catering for children between the ages of twelve and sixteen years is situated to the west of Macedonia precinct on the periphery of the town, and in future will provide the education for secondary school pupils in Macedonia, Tanshall, and Caskieberran.

Glenrothes High School is on the western edge of South Parks and accepts children of fourteen to eighteen years after they have been to Glenwood Junior High School. This in future will provide for pupils in South Parks and Rimbleton. Senior pupils of High School standard were sent

to Buckhaven and Kirkcaldy before facilities were available in Glenrothes. Now Glenrothes is catering for secondary pupils from Leslie, Markinch, Thornton and Kinglassie.

Plans have been accepted for a technical college built on a campus with six to eight separate institutes, on a site just east of the Viewfield Industrial Estate. The college is expected to develop according to the needs of local industry. At present apprentices and others requiring technical education must seek it in Edinburgh or Kirkcaldy.

Churches in Glenrothes

Besides the schools other focal points of the community might be the churches. At this stage of development there are five churches, but to start with services were held in the Carleton Primary School. St. Margaret's, a Church of Scotland which is in the south-west of Woodside, was opened in May 1954 and serves the eastern part of the town. The second parish church, opened in April 1961 is St. Columba's on Church Street, in the south-west corner of the town centre near the South Street shops and adjacent to the South Parks precinct. It serves the western part of the town.

St. Paul's Roman Catholic church, dedicated in June 1958 is situated in the eastern part of the Auchmuty precinct in Warout Road which connects the southern part of Woodside with the town centre. Because of the increased size of the parish the Roman Catholics in Glenrothes have recently been divided into two parishes, those in the western part of the town becoming part of the Leslie Parish.

St. Luke's Episcopal Church dedicated in October 1962, is centrally located at the town centre, while the Baptist Church is found in Queen Margaret Drive in the northern part of the Auchmuty precinct.

Of these churches all except St. Paul's have halls in addition to the church building. St. Margaret's Hall, seating 250 people was built by voluntary labour and opened in September 1956. The Christian Brethren meet in a hall in St. Regulus Garden in Auchmuty.

It can be seen that in no part of the town is a church serving only one precinct, and only the Church of Scotland has a church in each of the neighbourhood units so far established. Like the churches in East Kilbride they organize many activities for the town's residents, including activities for children, such as Cubs, Brownies, Scouts and Girl Guides and activities for young people such as badminton, basketball, drama, country dancing, youth clubs and social functions for adults. They appear to carry out functions far beyond those that simply serve their own members.

Apart from church halls there are a limited number of meeting places in the town suited for activities that bring people from all over the town, or for activities that occupy those living in a specific area such as a neighbourhood or a precinct; or for an individual interest group.

Clubs and Organizations

The Coal Industry Social Welfare Organization has built a community centre near the town centre, with clubrooms, and a ladies' room as well as a hall with stage facilities and seating accommodation for over 400 hundred people. This was opened in 1959 and serves to illustrate the strong link the town had with the mining industry during the early years of its development. This is now called the Glenrothes Recreation Centre.

A community hall seating 250 people, near the Woodside shopping area, was completed in the fifth year of the town's growth and gave rise to an increased number of social and cultural activities in the area. Tenants' meeting rooms in Auchmuty, Rimbleton and Macedonia each with accommodation for approximately 65 people are used by various organizations in those areas. A Halls' Management Committee consisting of representatives of the Corporation, the District Council and local voluntary associations supervises the use of the halls in the town.

Several clubs and interest groups have facilities of their own. For example, the British Legion rebuilt premises on the south-west edge of Woodside after fire had destroyed

the first building. The Art Club has a 25 year lease on property in Alburne Park. Preston School, also in Alburne Park, is used as a Youth Centre. Also in Woodside, the Old People's Welfare Committee have a lease of a former railway cottage, and the headquarters of the Army Cadet Force for the recruitment and training of cadets is in the precinct. One Scout Hall is located in South Parks Farmhouse and another is in the Woodside Service Industry site at the eastern edge of Auchmuty. The South Parks Farmhouse is also used by an old folk's club called the Farmhouse Club.

The bowling alley at the town centre is the only form of commercial entertainment in the town. As in most New Towns of this size no cinema has been built.

This brief survey of facilities illustrates how much better served the Woodside precinct is than any other individual precinct in Glenrothes. It is partly because it was settled earlier than other precincts and in this respect could be compared with The Mains Neighbourhood in East Kilbride where there are also more community facilities than in the other neighbourhood units. South Parks is more like Calderwood in that both of these areas came later in the development of their respective towns.

Population Structure

Glenrothes, like all New Towns has suffered from an immature age structure. The effect on educational facilities has been noted. Maternity, medical and sociological services are also affected by such imbalance. Like East Kilbride, where one neighbourhood unit was completed at a time, Glenrothes has a different age structure in each precinct. The figures in Table 8.4 are from the Sample Census, 1966. As the Enumeration District boundaries do not coincide with those of the precincts the figures will not be accurate, but for the purpose of illustration there is sufficient correspondance to indicate the differences between the older and newer precincts. For comparative purposes the statistics for the County of Fife where the age structure is mature with a fairly even distribution through all ages until the narrowing in the upper age groups, have been included.

Table 8.4 Age structure in Glenrothes and the County of Fife (percentages)

Years	<u>Woodside</u>		<u>South Parks</u>		<u>Glenrothes</u>		<u>Fife</u>	
	M.	F.	M.	F.	M.	F.	M.	F.
0-4	10.3	11.1	17.4	15.7	17.0	14.0	9.5	8.6
5-14	21.7	19.7	22.7	25.0	22.5	21.0	17.1	15.0
15-19	9.9	9.1	4.5	5.0	5.9	8.4	8.9	7.9
20-24	6.4	6.6	3.0	4.3	5.8	7.9	6.6	6.0
25-44	28.1	30.3	39.3	33.5	33.4	32.4	24.2	24.2
45-59	17.7	15.7	9.8	11.4	10.3	10.4	18.9	19.3
60-64	2.0	2.0	0.8	0.7	1.8	1.4	5.6	5.4
65 and over	3.9	5.6	2.3	4.3	3.2	4.5	9.2	13.5

[Source: Sample Census, 1966.]

Woodside's population structure is more like that of Fife as a whole than of South Parks, or even of Glenrothes. Even so, Woodside's population characteristics indicate a tendency towards youthfulness with a proportionately larger number of children in the five to fourteen age group and a larger group of young adults between 25 and 44 years. Also, the proportion of older people over 60 years is markedly less. South Parks, being established more recently, reflects this imbalance to a much greater degree with a marked bulge in the pre-school age group and very few in the fifteen to nineteen year group. The large number of young adults and the significantly small group of people over 45 years are characteristic of an immature population structure. Since the Census was taken, an Old Folk's Home for 42 people has been opened in South Parks and this would contribute to a slightly different structure, but of insufficient size to affect the size of demand for the requirements of the old people. The Corporation has accepted a policy that ensures that their needs will be satisfied and is attempting to establish a mature character in the age structure of the town. For example, to commemorate the Coronation six two-apartment cottages for aged, infirm or disabled miners were built, and the Church of Scotland has taken over Leslie House for an Eventide Home.

Not only does the population structure vary from precinct to precinct, but so does the household size. This is of course related partly to the proportions of dwellings of various sizes in the precinct but also to the population structure. Few people in the New Towns live alone - Woodside 5.5% of the households, South Parks 5.4%, Glenrothes 5.7%, compared with Fife 15.0%. With 1,109 households in Woodside the average household size is 4.86 persons while in South Parks with 895 households it is 3.55 persons.

Employment in Glenrothes

Because people between 25 and 40 years are forming the main body of the work force in the town few people are reaching retiring age and the number of school leavers outnumber those who are leaving their work. This creates a demand for new and diversified employment opportunities if younger people are not to re-emigrate or commute to other towns.

Balance of industry has been the most difficult thing to achieve in Glenrothes partly because of policy changes in the coal industry and partly because varied industries have been difficult to attract to this northernmost New Town.

According to the Sample Census, 1966, 5,04 men and 2,21 women residents of Glenrothes were in employment. Of these people 44% of the men and 68% of the women worked in Glenrothes while the majority of the others worked in other parts of Fife. Commuters also come to Glenrothes from various parts of Fife.

Of the residents in South Parks 64 were working in Glenrothes while 34 worked in another local authority area. Woodside's figures showed a reverse tendency, 62 being employed in Glenrothes and 109 elsewhere. This is partly due to changes in policy about housing allocation. Recently a smaller demand for houses in Glenrothes has meant they have been available for most of those who have applied regardless of place of work, but this will only have its effect on the employment structure in the newest areas.

Table 8.5 Industries of persons in employment

	<u>South Parks</u>		<u>Woodside</u>	
	M.	F.	M.	F.
Total (including inadequately described)	71	28	124	51
Agriculture	-	-	1	-
Mining	5	-	11	-
Manufacturing, Construction, Gas, Electricity and Water	43	14	65	24
Transport	8	-	12	3
Distribution and Civilian Services	10	14	25	23
National and Local Government	4	-	10	1

[Source: Ward Library Tables, Sample Census 1966.]

Prior to designation the paper industry, whisky bottling and coal mining were the important industries in the town. At first a major effort was made to keep a ratio of one miner to eight or nine others in order to avoid a repetition of faults to be found in mining communities in other parts of the country. The Annual Reports of the Development Corporation right from the beginning seemed pre-occupied with this desire for balance. The first Annual Report expressed concern over difficulties in achieving a balanced community. An adjustment area was left unbuilt on, in each residential precinct so that there remained an opportunity to correct initial faults of balance. After the third year of development the proportion was one miner in nine, and four years later it had dropped to one in twelve. At this stage it appears that the Corporation were becoming anxious that there would be too few miners and that because of the reduction in the National Coal Board's estimates most of the miners might be concentrated in one part of the town, contrary to the precepts of earlier planning. The eleventh Annual Report records the change of policy resulting from the changing demand for coal, and by June 1962 when the proportion was one miner to 32 others, Glenrothes could no longer be considered as a mining town. Of the 1,050 miners who had officially transferred to the town only 424 were

still employed in mining. Others had been transferred elsewhere, retired, were in new employment or unemployed. The majority of the miners therefore live in the East Neighbourhood, and now, even in Woodside the number employed in mining forms only 9% of the men in employment. From the point of view of balance, the number of miners is certainly not a problem.

By 1967 there existed varied industrial activity with a small emphasis on electronics, light industries such as toy making, ladies' clothing, plastic sports goods and food preparation, and engineering such as the manufacture of mining equipment and hydraulic components. Impetus was given to industry when Glenrothes became part of a Development Area under the Local Employment Act, 1960. Now industrial estates are found on the periphery of the built-up area, but according to the most recent master plan the relative location to residential areas will change.

Queensway Industrial Estate to the north of the town centre extends over the River Leven to the north side of the valley. A small eastern extension of this area includes the Fife Paper Mills. Eighteen factories have been built there between 1957 and 1968 and are in addition to the paper mills existing since the nineteenth century. Queensway's industries are primarily devoted to light industry.

The Viewfield Estate in the south-west was developed by a group of five industries in 1964-5 and these are mainly heavier. Southfield Industrial Estate is planned further south. In the south-east near Woodside the Eastfield Industrial Estate has had a group of five factories built during the last decade.

Woodside is within easy walking distance of both Queensway and Eastfield as well as the Woodside Service Industry site which is situated between the Woodside and Auchmuty precincts. South Parks is within walking distance of both Queensway and Viewfield Industrial Estates.

Apart from the paper mills, four firms employ more than 100 people each. Three are found in the Queensway Industrial Estate while A.E.I., the largest, employing almost 600 people, is located in the Viewfield Industrial Estate. The

Corporation has been concerned with promoting a suitable balance between manufacturing and commercial industries and feels the need to encourage service and commercial employment generators and to promote office employment.

Also of concern has been the balance between male and female employing industries, the lighter industries using much female labour. In 1966 the Scottish Development Department's Quarterly Returns for Employment in New Manufacturing Industry show Glenrothes as having 1,641 males and 1,623 females in new manufacturing employment. Figures given in the Sample Census, 1966 show the total economically active population in employment includes 5,19 males and 2,23 females so that an imbalance will eventuate unless emphasis is placed on male employing industries.

When a classification of socio-economic groups is made the contrast between the individual precincts is as great as between Glenrothes and Fife. Both Woodside and South Parks have higher proportions of men in the upper socio-economic groups than Glenrothes, and fewer in the lower groups. South Parks has a considerably higher proportion in the non-manual, foremen, skilled manual, own account workers, professional and managerial groups, than Woodside. The reverse applies for the lower groups.

private ownership
at densities of 20 or 30 persons per acre, that is, between
six and twelve dwellings per acre. This would contrast with
those in Corporation houses where there are between 35 and
55 persons per acre.

Table 5.7 Tenure of dwellings

	<u>Glenrothes</u>	<u>South Parks</u>	<u>Woodside</u>
Owner-occupier	9	2	6
Renting from Council or New Town Corporation	4,76	71	97
Renting unfurnished	6	-	2
Renting furnished	-	-	-
Other, not stated	15	1	3

[Source: Sample Census, 1966.]

Table 8.6 Economically active and retired males aged 15 and over by socio-economic groups

	<u>Woodside</u>		<u>South Parks</u>		<u>Glenrothes</u>		<u>Fife</u>	
		%		%		%		%
Professional workers	6	4.6	6	8.0	24	4.4	2,82	2.7
Employers and managers	10	7.7	9	12.0	37	6.8	8,07	7.8
Foremen, skilled manual workers, own account workers (other than professional	64	49.2	39	52.0	2,45	45.3	39,89	38.4
Non-manual workers	30	23.1	15	20.0	97	17.9	14,09	13.6
Personal service workers, semi-skilled manual workers and agricultural workers	11	8.5	5	6.7	93	17.2	24,83	23.9
Unskilled manual workers	7	5.4	1	1.3	38	7.0	9,85	9.5
Armed forces and persons with inadequately described occupations	2		-		7		4,45	4.3

[Source: Sample Census, 1966.]

Related to the socio-economic characteristics of the community is the form of housing tenure in the town. The present policy is to increase the area in private ownership at densities of 20 or 30 persons per acre, that is, between six and twelve dwellings per acre. This would contrast with those in Corporation houses where there are between 35 and 55 persons per acre.

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Renting furnished	-	-	-
Other, not stated	15	1	5

[Source: Sample Census, 1966.]

SOUTH PARKS
Distribution of
privately owned
houses



High School

Approximately 50 per cent
owner occupation



Primary School



Rolhes Road



South Street
Stops



Church

South Parks Road

Scott Road

Napier Road



Fig. 8.2

By the time the survey was done 70 houses in South Parks in the area north of Napier Road and an adjacent area south-west of this, had been sold (see Fig.8.2). This is part of a policy to encourage owner-occupation, and within each precinct some parts have been set aside for this purpose. It is hoped by the Corporation that this will help to "balance" the population and persuade a higher proportion of the executive and managerial classes to live in the town. The statistics in Table 8.7 indicate, however, that the town already has as high a proportion of this class, as Fife as a whole. The only area in Woodside with a number of owner-occupied houses along with Development Corporation houses was Alburne Park. The Corporation has since encouraged people in the Wells Road area to buy their houses. In the rest of the precinct several groups of houses are not in the control of the Corporation. Houses remaining as evidence of the old village stretch along the south-eastern end of Woodside Way and Woodside Walk. Further north-west along Woodside Way is a group of Fife County Council houses dating from before 1939. The large group of post-1945 County Council houses is south-east of Woodside Way and eight houses owned by the National Coal Board are found on the southern side of Well Gardens. Corporation houses are located west and north of the groups already described.

Hence in both precincts there is an area where owner-occupation is predominant. South Parks is a precinct settled within a few months while Woodside has had different parts occupied at different times and these areas have distinctive architectural styles so that in this area there is physically less unity than in South Parks. The fact that an important road runs through the area and separates different groups of houses could add to the lack of unity in Woodside.

With Woodside having been completed by 1955 and most of South Parks by 1964 these two precincts are at quite different stages of development. Neither can be regarded as completely typical of Glenrothes but they illustrate aspects of precinct development under different circumstances. Woodside grew at a time when Glenrothes was still considered a coal-mining community; South Parks has grown since Glasgow overspill and greater industrial diversification have been important.

CHAPTER IXLIVINGSTON

Unlike either East Kilbride or Glenrothes, Livingston's development as a New Town has been very recent and is still in its initial stages. The date of designation was only in 1962. Like the earlier New Towns in Scotland it was built partly as a result of recommendations made in Mears' "Regional Survey and Plan for Central and South-east Scotland", but the most significant survey of the area affecting Livingston came as a result of a proposal in the White Paper on the "Draft Designation New Town (Livingston) Designation Order, 1962" (Scottish Home and Health Department, 1962, p.9). A Joint Planning Advisory Committee consisting of representatives of Midlothian County Council, West Lothian County Council and the New Town of Livingston, with observers from the Scottish Development Department, came into existence in 1963 and their report was published in 1966 although advantage was taken of interim reports from 1964. "The Lothians Regional Survey and Plan" added details that supplemented information previously available to the planners (Scottish Development Department, Midlothian and West Lothian Joint Planning Advisory Committee, 1966).

Basically the original purposes of building a New Town at Livingston were similar to the purposes of building other New Towns. In the first Annual Report of the Livingston Development Corporation the purpose of the New Town was described, "(a) To provide over 1,000 houses per annum from 1965 onwards to house families displaced by the redevelopment plan of Glasgow Corporation who cannot be accommodated within the city boundaries, or by other authorities who have entered into overspill agreements with the Corporation; and (b) to create a new focus of industrial activity in the central belt of Scotland and thereby link the industrial west with centres of expansion in the Forth Basin, and at the same time revitalise with modern industry an area hitherto largely dependent on the mining of coal, and of shale which has now ceased" (Livingston Development Corporation, First Annual Report, 1963, p.152).

However the Lothians Report suggests that very little of the employment needed for growth can be expected to come from Glasgow and that some of it may even be attracted from Edinburgh. It also foresees a considerable number of immigrants from Edinburgh in spite of the centrifugal drift from cities towards suburbs rather than other cities.

The White Paper, "Central Scotland: a programme for development and growth" stated that the survey area covered by the Lothians survey should be regarded as a growth area and that Livingston should become the centre of the region (Board of Trade, 1963); so in the light of the "Lothians Regional Survey and Plan" a further purpose for building Livingston was added to the two above, viz. to make Livingston the centre of economic growth of a complete region by aiming at a target of 185,000 people for Greater Livingston by 1986. It was believed that such a community would develop service employment and less likely be dwarfed by the economic and social life of Edinburgh. In relation to this additional reason for building the town a more flexible immigration policy was envisaged.

Livingston is the first New Town to be built as part of a regional plan. It covers an area of 80 square miles with Livingston near its centre, and at a distance of only fifteen miles from Edinburgh it will be the first New Town to be placed close to a major urban area other than that from which it expects to draw the majority of its population. A danger is that its proximity could cause it to become a dormitory town for Edinburgh, particularly since it was stated that it is not the intention of the planners to make it completely self-contained. Financial assistance to industry and the construction of an attractive alternative office and shopping centre in Livingston are expected to prevent the town from acquiring a dormitory function. According to P. McGovern the planners have accepted that there will nevertheless be a high level of commuting into and away from the town for work, and that the economic and social links with the surrounding region and with Edinburgh will become stronger as mobility increases. The aim remains a balanced and self-supporting town with a wide range of industrial, commercial and office employment (McGovern, 1968, p.42).

The Livingston Master Plan Report, 1963 stated that, "The choice of site depended on finding land minerally stable and for which services could be readily provided, attractive to industries and to create a new focus of industrial activity in Central Scotland".

The site chosen consists of 6,692 acres between Bathgate, Broxburn, Mid Calder and West Calder with 3,292 acres in the county of Midlothian and 3,400 acres in West Lothian. This area covers land under the jurisdiction of four different Districts of County - East Calder, Uphall, Whitburn and Livingston, Bathgate and Torphichen. From the centre of Edinburgh it is 15 miles, from Glasgow 29 miles and from Grangemouth 16 miles. Bathgate is the nearest town. Dechmont, Bangour, Pumpherston, Mid Calder, East Calder, Polbeth, and Uphall Station are all within two miles of the designated area.

The area is drained by the west-east flowing River Almond and has the bleak Slamannan Plateau to the west, the Bathgate Hills to the north and the Pentland Hills to the south. The north bank of the river rises fairly steeply for half a mile until it reaches a broad shelf at approximately 500 feet, and then rises more gradually to the base of Dechmont Law, a basaltic outcrop which reaches 711 feet north of the Bathgate-Edinburgh railway line. The south bank slopes gently until it reaches the gorge area south of the A71. Small burns with steep sided valleys form tributaries to the Almond River.

Most of the area consists of gently rounded hills covered with boulder clay with some basalt intrusions that have been exposed to the west and covered by talus in the east in the Howden-Uphall area. Scattered deposits of alluvium in the valley bottoms have been farmed while some of the clay lands have given rise to marsh or a peaty surface layer, e.g. Dechmont and Moss Wood and Houston Wood. Such woodland has been used for shelter in parts where the land is exposed to the prevailing winds.

The area was devoted mainly to farming immediately prior to designation, and agriculture is still carried on over much of it. Settlement within the area existed at

Livingston Station (1,401 people), Livingston Village (74 people) and Bellsquarry (131 people). A further 400 people lived on scattered farms.

The population distribution in the area was partly determined by the intensive exploitation of oil shale which was mined to more than 1,000 feet at Pumpherston, Deans, Long Livingston, Alderstone and Newfarm. These mines produced large flat-topped reddish bings of spent shale which dominate a considerable part of the north-east near Uphall, the north-west near Livingston Station and an area near Mid Calder to the south-east. Hence mining and farming dominated the landscape and the occupational structure in the early part of the century. Widespread subsidence has limited the spread of settlement, and as the shale was mined on the "stoop and room" principle, subsidence is erratic and intermittent so some of the land is unsuitable for building.

Until 1940 when municipal houses were added to the village, Livingston Station was a Scottish Oils' Company village of terraced miners' rows built between 1905 and 1913. The early development was at a time when large-scale mining and processing operations were taking place nearby. The settlement was characterised by low occupational mobility partly because the house went with the job, and partly because of the settlement's relative isolation, and the location of residence near the workplace. This low mobility led to a high degree of self-sufficiency, unusually long residence and intermarriage. Even when migration took place movement was often to work in nearby mines, so links were maintained with people in Bathgate, Broxburn, Stoneyburn, Armadale, Pumpherston, Uphall and Seafield. Significantly this led to firm kinship and neighbourhood ties in Livingston Station, and redundancy following the final closure of the mines in 1960 accentuated the community interdependence.

Livingston Village was formerly on an important route between Mid Calder and Glasgow which now joins the A8 near Whitburn. Its character is that of a Scottish farming community centred on its eighteenth century parish church. The Corporation aim to preserve the character of the Village

as far as possible and at present the only change has been the building of terraced houses for sale on a small site near the centre.

Town Plan (see Fig.9.1)

Although the differentiation between a regional city and the other forms of New Towns does not necessarily cause a basic difference in the plan or in residential densities, it has been necessary to discuss the part to be played by Livingston in order to recognize why certain differences occur among the New Towns. Because Livingston is to be a regional centre allowances have to be made for a heavier flow of traffic, for more extensive shopping and commercial facilities and for more social and recreational amenities than the town might otherwise support. Particularly is this significant when road patterns and open space distribution have so much influence on the form of the town plan.

The master plan depicts the river valley as a linear core of the town with the town centre astride the River Almond. The major focal facilities are to be dispersed in order to provide several points of interest along the valley so that the completed town centre will consist of a number of related units. It is considered that this centre might be commenced when the population reaches approximately 10,000 inhabitants and that this will be extended as the town grows.

The plan aims to have the town expand in a linear form up the valley so that major sections will have a north-south orientation, each one containing part of the central core in the river valley. The river is to be bridged so that residential areas to the north and south will be linked by vehicular and easy pedestrian ways across the valley. The core is designed so that it will open out into open space at the eastern and western edges where land has been reserved as public open space and woodland. The River Almond is planned to form a link between a series of open spaces, parks and gardens throughout the town.

On the master plan of 1966 most of the town is surrounded by woodland or open space, in addition to the open spaces between residential and industrial areas. New planting is

MASTER PLAN FOR LIVINGSTON

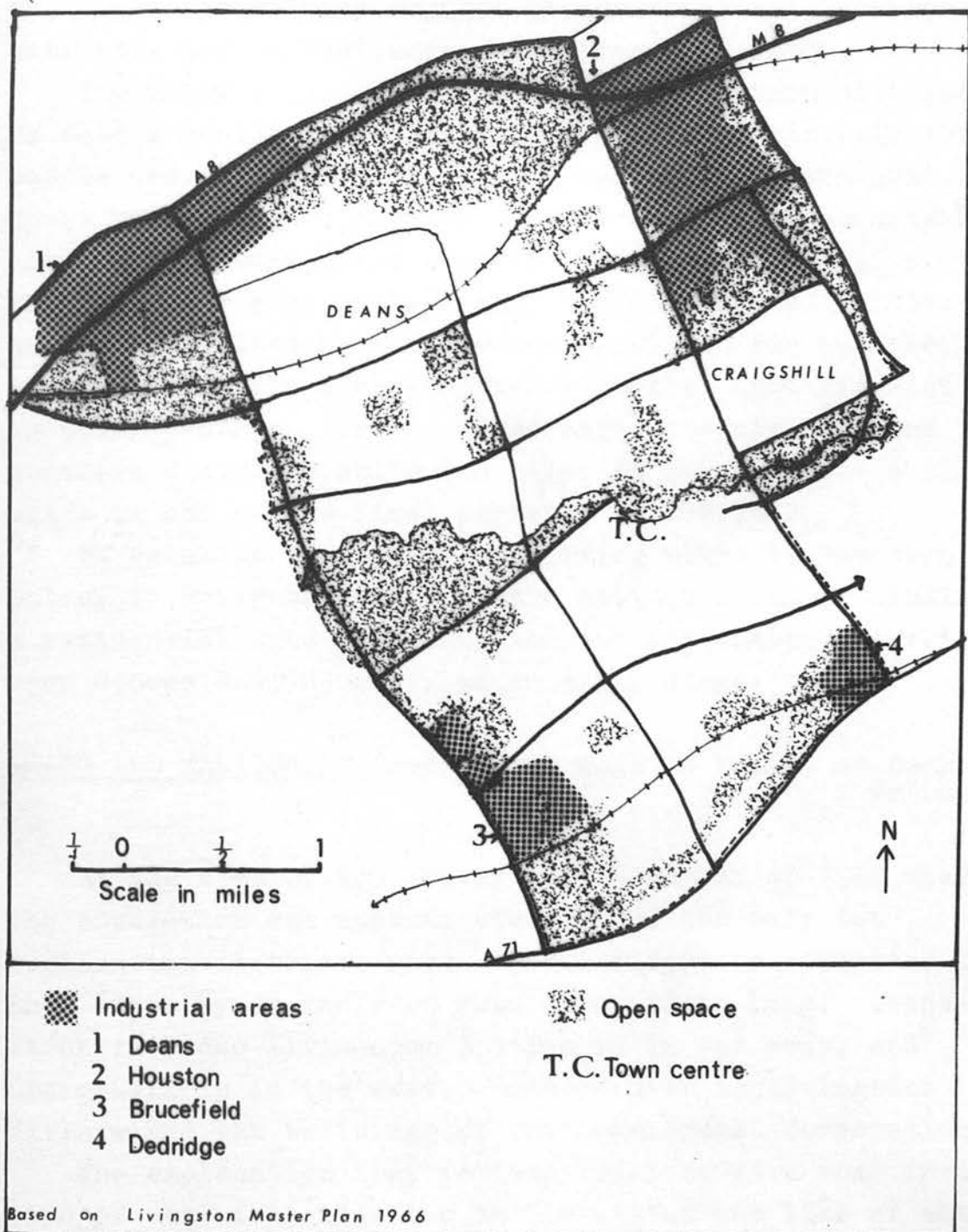


Fig. 9.1

to provide a forest on the western boundary while further large blocks of trees are to act as shelter belts, break up industrial areas, and improve the landscape. Minor open spaces are to form part of the footpath system leading northwards towards the open spaces of Dechmont Law and to the southern edge of the town.

Industrial districts are to be established adjacent to the town's boundaries so that their peripheral locations will give them direct access from regional roads.

The major road pattern is to be in the form of a grid so that a residential district housing approximately 10,000 people can be established in one rectangle of the grid. These residential districts are not considered as neighbourhood units although the size would imply that they might be thought of as such units. They would lack the facilities normally included in neighbourhood units. For example, only three of these residential districts have district shopping centres. Two of these serve the northern and southern districts while the other is serving Craigshill which is one of the first parts to be settled.

To establish the town as a living place it has been policy to build the whole of the eastern strip, including a residential area with shopping and educational facilities, open spaces and industry, at an early stage.

DEANS AND CRAIGSHILL (see street maps in pocket at back of volume)

At the time of the survey in the summer of 1968 when the population was approximately 7,000 the only two residential districts with new building were separated from each other by an indirect road three miles long. Deans which includes Livingston Station is in the west, and Craigshill is in the east. Between them is Livingston Village and the buildings of the Development Corporation.

The explanation that follows tries to give some indication of what the situation in Livingston was like at the time of designation, and at the time of the survey. It includes a brief outline of the future plans.

Craigshill, located on undulating land rising north of the Almond River, covers an area of about a half a square mile. It is bounded by the open space that occupies the steeper slopes of the river. A major spine road and stretch of about 300 yards of open space effectively separates Craigshill from the newer Howden development to the west while playing fields and woodland isolate it from the Houston Industrial Area further north. To the east, beyond Pumpherston Road new woodland is to be planted.

The boundaries of the Deans District at present include the railway line in the south, farmland at present to the north, open space and shale bings to the west, and a playground and farmland to the east. Eventually the district will extend south of the railway line.

Communications

The town as a whole will be contained within two main roads, the M8 to the north and a re-routed A71 which links Ayrshire via the Calders with Edinburgh, to the south. The new Livingston Road, when extended, will form a major north-south spine road near the eastern side of the town, and a north-south by-pass has been planned along the western boundary so that it will link the M8 with the existing A705 and A71, thus enabling traffic between Bathgate and the south to avoid the town, but at the same time giving regional access to the facilities in the Almond Valley. These four roads are expected to serve the industrial areas on the periphery and give limited access to the residential districts. A third north-south spine road will lead directly to the central valley. These main roads will form the grid that will divide the town into residential districts of which Craigshill and Deans were the only two with a significant number of inhabitants at the time of the survey. According to the Livingston Master Plan Report of 1963 these roads will insulate districts from each other and enable them to gain their own identity, while pedestrian movement will link together adjoining districts and the central valley facilities.

At the time of the survey the northern part of the Livingston Road gave direct access from the north-west of Craigshill to the M8. A road led from the south-west of Craigshill towards Howden Bridge and the A705. This was the most direct road to Livingston Village and the Development Corporation offices one and a half miles away, and the Deans District. To the east of Craigshill was the A767 joining Pumpherston, Mid Calder and Uphall. Deans had access to the M8 via Station Road, the new highway forming the west boundary having not yet been built. Main Street extended south to the A705.

The town roads are primarily to facilitate journeys to work and to focus on the central valley. Cross-town routes will aim at avoiding the town centre in order to reduce the amount of traffic there.

Collector roads in the residential districts are planned to have limited access to motorways. Within Craigshill the roads are related to a major loop road that extends from the north-west to the south-west of Craigshill where are found the two main points of access to the district. From this major loop are four minor loops, three of which had culs-de-sac leading from them, in the summer of 1968. In the north-west of Craigshill the part known as Craigshill West has six streets extending inwards from the loop made by Craigshill Road. In this quarter each street has the name of an Australian town and has become known locally as "Australia". The north-east of Craigshill, known as Craigshill East also has a number of culs-de-sac leading towards the centre of the quarter, but in addition half a dozen roads lead eastwards away from the centre so that the group of houses is found on either side of the main loop road. All streets in Craigshill East are given the names of trees and are called Groves. The minor loop road in the south-west is similar in pattern to that in the north-west; the streets are called Walks and are given the names of Scottish lochs. A small unit in the south-east, called Almond South, is completely outwith the main loop road and lies between the main loop and the A767. Cul-de-sac lead inward from the half loop made by the road linking Almond

Road (the major loop) and the Pumpherston Road. Here the culs-de-sac are called Courts and are given the names of Scottish literary figures.

Thus as a result of this internal road pattern and the extent of building completed by August 1968, four sub-areas could be identified within the Craigshill District.

The road pattern in the Deans District is quite different, partly because it has been related to the existing settlement at Livingston Station. Other than for one row of houses that were being demolished and a church, a public house and a few shops, all building was east of Main Street. For descriptive purposes it can be divided into three sub-sections. The old part of Livingston Station has a grid pattern of narrow streets running at right angles to, and parallel with, Main Street. At the time of the survey the majority of the miners' rows had been demolished and the state of the pavement was in very poor condition. Along the roads north and east of this block houses built by the County Council and Scottish Special Housing Association are still in good condition. The small area to the north-west of the block is hillier terrain and the road pattern is less regular. A second form of road pattern is found on the rise to the north of the older settlement in East and West Glen Avenue. The road pattern consists of two main culs-de-sac which ensure that very few of the houses either face or back onto any roadway. Deans South, the newly developed area south of Livingston Station has a loop road from which a limited number of culs-de-sac lead both to the interior of the loop and away from it. Again, a relatively small number of dwellings have direct access to the roadway.

Hence within the Deans District the rectangular grid of Livingston Station, the loop and culs-de-sac of Deans South, and in the north the culs-de-sac from a spine road, form three distinct road patterns.

The aim in all residential districts is to exclude everything but local traffic. At present this is not completely possible in the Deans District because traffic moving towards the south from the M8 and Deans Industrial

Area in the north, goes along Station Road and Main Street. On the other hand, traffic moving towards the south from the M8 and Houston Industrial Area, avoids Craigshill.

Like East Kilbride and Glenrothes, Livingston has a higher than average rate of car ownership. According to a survey carried out by Livingston Development Corporation in July 1967, 63% of the thousand households surveyed, owned cars. 60% of the households in Deans South and 65% in Craigshill own cars. (The 1966 Sample Census shows only 41% of the households in Livingston owning cars.) East Kilbride and Cumbernauld (October, 1966) have a 51% car ownership, Edinburgh 33%, Midlothian 40% and West Lothian 34%.

The bus routes serving Livingston, as with those serving most New Towns, are frequently under review. Livingston is served by Scottish Omnibuses (Eastern Scottish) on routes between Edinburgh and Bathgate and between Edinburgh and Glasgow. From Edinburgh buses travel via Newbridge, Broxburn, Uphall, Pumpherston, Houston Industrial Estate, Craigshill, Howden Bridge, Livingston Village, Livingston Station, Livingston Road End to Bathgate. Within Craigshill the route follows around Craigshill Road to Almond Road and onto the A705 near Howden Bridge before going on to Livingston Village and Livingston Station. These buses on the Livingston to Edinburgh run, go once an hour between 0700 hours and 2300 hours with a few additional services on weekdays as far as Bathgate, to serve commuters. Buses travelling on the Edinburgh, Shotts, Glasgow route run on the A705 through Mid Calder and provide a half-hourly service, the journey taking 45 minutes to Edinburgh and 1 hour 50 minutes to Glasgow. A further 30 minute service between Edinburgh and Glasgow along the A8 is useful to residents walking as far as the main road. This journey to Glasgow takes 1½ hours. A local service from Broxburn to Mid Calder via Pumpherston and along the A71 from Mid Calder to West Calder via Polbeth is also of use to Craigshill residents. Considerable use is made of private buses by firms that have large enough numbers living in Livingston, to warrant such services.

The railways play an insignificant part in the lives of the inhabitants. The line along the south side of the Dechmont Ridge no longer carries passenger traffic, so the nearest station is four miles away at Mid Calder. Trains pass on this line every one or two hours during the day, so for most practical purposes this line is not used much by people living in Livingston.

In addition to roads, an important feature in the communications of the town is the footpath system. A separate pedestrian system is planned on a modified Radburn Plan so that it will create an internal system of communications completely segregated from the major roads. The type of segregation is likely to be dictated to some extent by the environmental densities. In areas of higher density separate levels of communication are planned. In the central valley area traffic will be controlled at the periphery while the town centre and riverside will be left for pedestrians. The planners aim to create a system where no child should be tempted to cross anything but the smallest culs-de-sac on the way to school. Craigshill follows this pattern, with a footpath system separate from the roads and being integrated with the central mall so that eventually schools, shops, commercial and recreational features will be linked with residential areas. At the time of the survey, in addition to the internal footpath system existing in Craigshill, it was possible in fine weather to take a rough path from Craigshill East to Pumpherston.

In both Deans South and East and West Glen Avenue, footpaths linked most of the houses, but no completely segregated system linked the whole of Deans District, nor the district with outlying places, although a footpath leads southwards from the railway line and another leads from north of the built-up area towards the north.

At this stage of the town's development a pattern of communications has been established in each district but only an indirect road linking one part of the town with another, so the three settlements appear to exist in relative isolation.

Open Spaces

The open space characteristics have not yet been developed along the lines of the Master Plan. Craigshill has an area south of Almond Road in the valley of the River Almond that will be devoted to public open space. To the east an area is to be planted in new woodland and to the north, between the residential area and Houston Industrial Area, the land is planned as playing fields. A rough football pitch was in use. As in other districts small sites have been set aside within the housing areas, for use by pre-school children. One square has already been equipped and kick-about areas for older children are to be established within quarter of a mile of all houses. At the time of the survey neither these, nor public playing fields had been developed, nor the large areas of open space planned at each end of the central mall. The aim is to group tennis courts, bowling greens, and pavilion accommodation at focal points in residential districts. Bowling greens were being prepared near the Craigshill Farmhouse. Other public playing fields will be placed in the main open spaces so that all houses are within a mile of a playing field, and secondary school playing fields are related to the main open space system. A golf course is planned to be contiguous with the open space in the Dechmont area in the north. Because of the early stage of development an extensive area of open space still lay south of Craigshill Road.

The Deans District is surrounded by open space in the form of farmland, a children's playground in the east and a strip of woodland in the south. This space will not remain because the plans for the future indicate part of the Knightsbridge residential unit to the north and east, part of Deans Industrial estate to the north-west and the Kirkton residential unit to the south. A sports centre and cemetery are planned for the west. At the time of the survey a vast open space was left in the Livingston Station area where many of the miners' rows had been demolished and the land was derelict. The local football ground had just been taken over for the erection of a new school and the playing field had not been replaced. It is hoped to rehabilitate the Deans Bing, west of Livingston Station, by grading the slopes and planting woodland around the

base to make the open space more attractive. The south side will be quarried for road building in the New Town, and this will then be integrated in a sheltered stadium facing south. The tennis courts in Deans District were no longer available for use because of some recent vandalism. Hence in the Deans district and in Craigshill there is limited developed open space but plenty of unbuilt land surrounding both areas at present.

Shopping Facilities in Livingston

The policy for the provision of shopping facilities in Livingston is not exactly the same as that of the Development Corporations in either East Kilbride or Glenrothes. The location of shops is going to be related to the distance of the district from the central shopping area in the central valley. Hence it is expected that the outlying districts will support a total of three small district centres without detracting from central valley shopping facilities. One of these centres is planned near the Deans-Knightsbridge boundary and another to serve the southernmost districts. The third is a shopping mall being built near the centre of Craigshill at the time of the survey, and ready for the first occupants. Two banks and a hairdresser moved in during the period of interviewing. It is to include 24 shops, a garage, motor showroom, licenced restaurant and a public house. Corner shops selling groceries and a limited number of convenience goods are located among each of three groups of houses, Almond South not having any such facility at this stage. In addition, in Almond West there were a retail chemist (non-dispensing) and a post office occupying temporary accommodation in houses. Livingston Station's half-dozen shops and post office continue to sell mainly convenience goods. A corner shop has been opened in Deans South. Livingston Village has only one small general shop and a post office, and Bells-quarry has two shops and a post office. Apart from these facilities in the designated area, within two miles of the town a number of villages and townships provide very limited services, as at Pumpherston and Mid Calder. At this stage bigger shopping expeditions, particularly for durable goods necessitate trips to Bathgate or further afield.

Mobile shops have been discouraged because they are considered, according to the Master Plan Report, as inconvenient, transitory, dangerous and adding to the noise level in the residential areas. Some service from mobile units takes place. For example, a mobile bank stops in Broom Walk (Almond West) three mornings a week and a mobile library stops in Onslow Street (Craigshill West) and Beech Grove (Craigshill East) once a week, and at the Riverside Primary School (Almond West) three times a week. Household requirements are more frequently bought from the corner shops and other shopping centres.

The following results come from a survey of travelling in Livingston New Town carried out in July 1967.

Table 9.1 Percentage of households visiting other towns for shopping

	<u>Deans South</u>	<u>Craigshill</u>	<u>Dominant frequency</u>
Bathgate	100	86	weekly
Edinburgh	65	62	occasionally
Glasgow	33	20	occasionally
Elsewhere	2	17	weekly

[Source: Livingston Development Corporation.]

With the addition of further local facilities it is likely that a decrease will be seen in future surveys, but the regular use made of Bathgate is particularly significant.

Schools in Livingston

It is anticipated that for a district with a population of 10,000, three primary schools, each within a walking distance of quarter of a mile of local housing groups, will be necessary. These are to be located so that no child will be required to cross a main road on the way to school. A secondary school and nursery schools are also to be located in each residential district. Within Craigshill the Midlothian County Council is responsible for educational facilities, while in the Deans District it is the West Lothian County Council. Riverside School near Almond West

was opened in 1965 and Letham School near Almond East was opened two years later. From Craigshill secondary school children go to West Calder six miles away. Roman Catholic children of primary age wanting to attend a church school need to travel to East Calder two miles away, and Roman Catholic pupils of secondary school age go either to Bathgate or East Calder depending on their qualification. In August 1967 the Livingston Development Corporation calculated that 13.9% of the children under eighteen years of age were Roman Catholic.

In Deans District the Livingston Station Primary School has been provided with additional temporary accommodation while another school is being built. The nearest school for secondary school pupils is in Bathgate.

Pre-school playgroups have been established by parents' committees at both Craigshill and Deans. The parents of the children and interested persons volunteer to provide additional assistance. Apart from a few further education classes, higher educational facilities must be sought outwith Livingston. The importance of the two primary schools in Craigshill in the provision of accommodation for the social needs of the families as well as for the education of the children, will be seen in Part III.

Recreational Facilities

The major difference between the two districts is that Deans District was established around an existing settlement, namely Livingston Station, whereas Craigshill was built on virgin territory. In the existing settlements at Livingston Station, Livingston Village and Bellsquarry the buildings used as community halls and the public houses also tended to act as meeting places for the community. It was partly because of its existing commercial and recreational activities that Livingston Station was considered suitable for the first housing programme. The rehabilitation of the Deans Institute, originally owned by Scottish Oils and now by the County Council, has given the residents indoor facilities with a small library, billiards room and hall, as well as a bowling green. In addition a number of

clubs were well established. Besides church groups there were Masonic and Orange Lodges, and sports clubs, e.g. a football club, pigeon racing and fishing, but a lack of recreational facilities for teenagers. Boy Scouts have the tenancy of an old cottage for a headquarters; and a Citizens' Advice Bureau has recently been set up in a cottage, although up until now little use has been made of it.

In the eastern part of the town Howden House, an eighteenth century mansion house, renovated with the assistance of the Carnegie Trust, was the only community centre functioning at the time of the survey. Although located in Howden District it provides a focus for meetings, exhibitions and discussion groups, and for the year ending March 1968 there had been 240 lettings to social organisations and 21 commercial lettings. A full-time Youth and Community Officer appointed by Midlothian County Council, and another one appointed by the Church of Scotland have been particularly concerned with activities for the residents of Craigshill which lacked any previous community organisation. Youth Clubs meet regularly in the Youth and Community wings of the primary schools in Craigshill. At the west end of the central facilities of the Craigshill District near land set aside for a church is the Craigshill Farmhouse which, along with part of the steading, has been leased by the Church of Scotland Home Board for conversion for social uses by the community. At the time of the survey this was being established by a few enthusiastic volunteers. A number of organizations have full-time field officers housed in the town, e.g. Women's Royal Voluntary Service, YMCA/YWCA Joint Committee, ToCH. The Social Relations Department of the Development Corporation contribute to a community feeling by making lists from data on the housing application forms, of persons with common leisure time interests, by organizing house to house visits, and giving advice on aspects of social development.

By the end of the summer of 1968 community activities in Livingston Station were still based on existing facilities, while those in Craigshill were centred on the schools and outwith the district, at Howden House.

Churches

The churches in the New Towns have had a significant part to play in the development of community consciousness. In Livingston Station there already existed a Women's Guild, Young Wives' Club, Men's Guild, Youth Fellowship and children's Sunday School associated with the Church of Scotland. The parish church is actually in Livingston Village but the Minister holds regular services in Livingston Station. Also in the district is a Gospel Mission Hall. For Roman Catholics the nearest churches are in Blackburn and Bathgate.

An attempt to co-ordinate the work of the various churches in Craigshill has been made. Although sites for churches have been selected by the Church of Scotland in Craigshill and by the Roman Catholic Church, in Howden, all services are at present conducted in the Riverside School. Protestants worship together and an ecumenical centre has been proposed at the town centre. A minister of the Church of Scotland, an Episcopal priest-in-charge, a Congregational pastor and a Roman Catholic priest have worked together in an effort to give some unity to their efforts. A church building at present being constructed by the Church of Scotland will eventually be used by the Episcopal Church as well. In the Howden District a church built by the Episcopal Church will also be used by the Church of Scotland and Congregational Union.

The churches have also been responsible for leading a Sunday "Forum" where mutual problems affecting the town are discussed and it was the "Forum" that initiated "Newsflash" - a weekly sheet about local current affairs which is delivered to every household in Craigshill.

Medical Services

Of the other community services the medical and health services have not yet had their plans finalised. By 1968 two general practitioners had converted houses in Craigshill for use as temporary surgeries, one in Almond West and one in Craigshill East. This measure is being taken while a health centre is constructed. The centre is to have

consulting rooms, treatment rooms and other facilities for the general practitioners and hospital out-patient services until a new hospital is built. In addition there will be maternity and child welfare clinics, health education services and rooms for health visitors and social workers. Land has also been set aside for a general regional hospital and the general practitioners working in the health centres are likely to be offered part-time posts in the hospital.

At present the doctors serving the Deans District hold surgeries daily in temporary accommodation in Livingston Station, but their bases are in Bathgate and patients only able to see their doctors in the evenings must travel to Bathgate.

A dentist also has a temporary surgery in a house in Almond West but again the people in Deans must rely on services elsewhere.

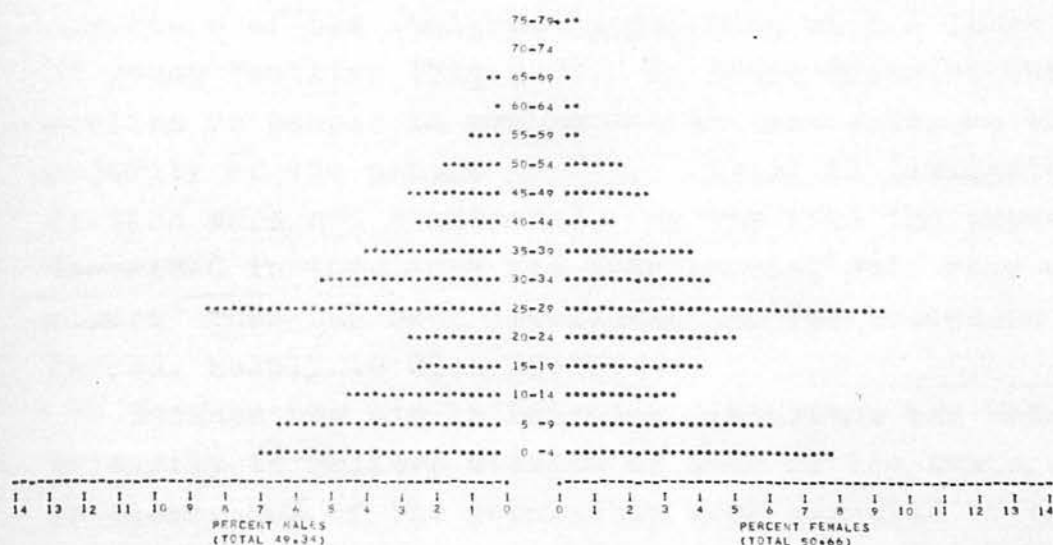
From the point of view of medical services the Craigshill residents are better served by local facilities than those in Deans. Future developments are bound to change the present character and distribution of health facilities.

Population Structure

By November 1966, 500 new houses, and by August 1967 1,000 new houses, had been occupied in Livingston New Town. At both stages the Livingston Development Corporation made surveys of the existing structure and consequently the information is more up to date than the 1966 Census. However, Livingston was one of the Special Study Areas in the 1966 Census so a 100% coverage was obtained. From some points of view these figures give a truer picture of the town as a whole because they include all households and not only those occupying new houses built under the auspices of the Corporation.

In November 1963 the existing age and sex structure was relatively mature. By 1966 the population had increased to 2,415 people (1,189 males and 1,226 females) and by the end of August 1967 there were 3,448 people in the 1,000 households controlled by the Livingston Development Corporation, with a male-female ratio of 100:98.9 which

AGE/SEX STRUCTURE BY QUINQUENNIAL COHORTS
(AGES: 0-4, 5-9, ..., 75-79+), 1967
DEANS



N.B. BLANK SPACES INDICATE VALUES BETWEEN ZERO AND 1/8TH OF ONE PERCENT

See Engmann, 1969.

Source: Livingston Development Corporation

Data applies only to population in houses leased by the Livingston Development Corporation.

AGE/SEX STRUCTURE BY QUINQUENNIAL COHORTS
(AGES: 0-4, 5-9, ..., 75-79+), 1967
CRAIGSMILL



N.B. BLANK SPACES INDICATE VALUES BETWEEN ZERO AND 1/8TH OF ONE PERCENT

See Engmann, 1969.

Source: Livingston Development Corporation

0-4, 0-9

differs from the Scottish ratio of 100:108.5. By the end of March 1968, there were an estimated 6,500 people. (See Appendix 1 for Age and Sex Structure in Livingston, August 1967.)

The 1967 figures illustrate an extremely immature structure of the immigrant population with a large proportion of young families (Fig.9.2). In Deans District the diagram applies to people in new houses at that date, so the majority of the people formerly living in Livingston Station were not enumerated. By the time the survey described in this work had been carried out, many of the miners' rows had been demolished and the occupants transferred, mainly to Glen Avenue.

Because the aim in building Livingston had been primarily to relieve Glasgow of some of its overspill problems, 80% of the population were expected to be people transferred from Glasgow, and a first instalment of 1,000 houses for overspill families was agreed upon during the second year of the town's development. The following figures were extracted from a table prepared by Livingston Development Corporation Planning Research Department from the results of the 1000 House Survey (August 1967).

replacing houses being demolished.

Of all the immigrants more than half claim that they moved to the area because it was nearer their employment, but this is partly accounted for by the allocation of houses depending, in most cases, on employment of the applicant in the area. The other significant reason given by people moving from Glasgow was in the interests of the children. While 26% of the people in the West Lothian part of the Lothians Regional Survey Area stated that an interest in the New Town was their reason for coming to Livingston only 10% of those in the Midlothian part of the area did so.

* LRSA = Lothians Regional Survey Area includes the "Parishes of Bathgate, Boleskine, Kirkliston, Livingston, Mid Calder, Kirknewton, Uphall, West Calder and Whitburn within the Counties of Midlothian and West Lothian" (The Lothians Regional Survey and Plan, Vol.1, p.13).

Table 9.2 Origin of immigrants

Within Designated Area	114
Midlothian part of LRSA*	72
West Lothian part of LRSA*	106
Glasgow	141
Lanarkshire	87
Edinburgh	164
Rest of Lothians	47
Rest of Central Scotland	109
Borders	26
Highlands	52
North England	40
Elsewhere	42
Total	<u>1,000</u>

It is significant that only 14.1% had come from Glasgow and that Edinburgh had contributed 16.4%. Even if the number from Lanarkshire is added to the number of people from Glasgow it only accounts for 25.4% of the immigrants. Approximately one-third of these from within the designated area were allocated houses by virtue of the need for replacing houses being demolished.

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* LRSA = Lothians Regional Survey Area includes the "Parishes of Bathgate, Ecclesmachan, Kirkliston, Livingston, Mid Calder, Kirknewton, Uphall, West Calder and Whitburn within the Counties of Midlothian and West Lothian" (The Lothians Regional Survey and Plan, Vol.1, p.ix).

The second Annual Report of the Development Corporation stated that one of the Board's first concerns was to provide housing as quickly as possible to meet the early needs of the building labour force engaged in Livingston, of industry likely to be attracted, and of their own employees. The following year it was reported that the first 22 houses had been let.

The Planning Proposals 1963 stated that the average net environmental density would approximate 59 persons per acre, but ranging from 30 to 2,000 per acre locally. The gross environmental density would be 43 persons per acre. The gross town density was expected to be about 16 persons per acre, varying between 7.5 and 30 persons per acre. This can be compared with the average of 12.5 persons per acre in most post-war New Towns. In order to achieve this higher density there will be fewer detached and semi-detached houses.

To provide for as balanced a population as possible the size of dwellings varies from one apartment for two people to five apartments for six people. The houses that were already in the designated area included farm cottages, miners' rows, County Council and Scottish Special Housing Association houses. During summer 1968 the demolition by bulldozers of many rows in Livingston Station obliged many of the older inhabitants to move to new houses. Glen Road and Main Street were the two remaining streets with miners' rows and these houses were being rapidly evacuated.

Craigshill will eventually represent 10% of the town's development, that is, 10,000 inhabitants. System building has been applied to Craigshill West and Almond West while traditional methods have been used in Craigshill East and Almond South. Of the 489 houses planned for Craigshill East 467 had been occupied so that this group was almost complete. They consist of a compact development of single aspect houses. The houses in Almond South are built at a generally higher standard and are available either for sale or at economic rentals. It is a higher amenity area near Almond Park and the houses are two-storey buildings with higher space standards, private gardens and their own

garages. The environmental density of between 30 and 60 persons per acre is low. Of these houses, 39 out of 108 had been occupied at the time of the survey, and in May 1969 a number remained vacant.

In the summer of 1968, 649 of the houses had been occupied. Some faulty construction that caused water penetration and dampness which reached particularly serious proportions during the gales in January 1968, resulted in a number of houses being vacated.

Industrialized building affects design because by this method it is simpler to construct a bold terrace building rather than a building with many corners. A large number of these terraces together tend to give the landscape a monotonous appearance, but the use of systems building has permitted large scale construction.

The only new private building in the designated area in the middle of 1968 was the small site in Livingston Village where a number of terraced houses had been built for sale. Some of these were still for sale in May 1969. Other plots for private building by firms or individuals have been set aside in Dechmont and Murieston which will have a density of approximately 30 persons per acre. Knightsbridge and Bankton are also to have some land kept for the same purpose. It is hoped that these areas will attract people in the upper income groups, but for others on lower incomes the scheme of graduated rents used in all the Scottish New Towns has been introduced. Tenants whose incomes are under £24 per week may apply to pay rent according to a graduated scale. For others a standard rent is charged. This standardisation ensures a relationship between rents in the New Towns for standard house sizes according to the stage of the town's development.

The relation of the location of residential areas to industrial areas could have an effect on the functioning of the town. Industrial areas are shown on the Master Plan. In the north-west is the Deans Industrial Area; in the north-east is the Houston Industrial Area; in the south-west will be the Brucefield Industrial Area, and in the south-east the Dedridge Industrial Area. Their peripheral

location will make access easy from the regional roads as well as keeping them within easy reach of adjacent parts of the town. At the same time their scattered character is to help the dispersal of selected industries throughout the town and to help even out peak traffic flows. Of these industrial areas Houston is furthest developed and in March 1968 1,000 males and 350 females were employed in the area. By far the largest firm is the Cameron Iron Works which manufactures forgings and employs 780 men and 70 women, the employment potential being 2,000. In 1968 the next in size was Eaton, Yale and Towne, hardware manufacturers, with 150 employees (approximately one-third males and two-thirds females) and with a potential of 440 employees. Along with Lee Cooper, clothing manufacturer, they are the chief employer of women. Other industries in the area included the processing of confectionery, manufacturer of sheeting pipes and other metal production, rubber seals and clothing. Crudens, the building firm, employed 76 people, while three worked at the Trumix Concrete plant.

The Deans Industrial Area had building in progress but at that time people were not employed in the area, and the nearest centre for employment for a large number was Bathgate, and in particular the British Motor Corporation.

Table 9.3 Workplace of head of household outwith the designated area

	Deans	Craigs- hill	Total	Percent	Percent of total wor- king heads
Bangour Hospital	2	8	10	3.4	1.1
B.M.C.	71	42	113	38.5	11.9
NW part of LRSA	19	16	35	11.8	3.9
SW part of LRSA	2	1	3	1.0	0.3
NE part of LRSA	11	11	22	7.5	2.3
Edinburgh	26	41	67	22.8	7.1
Glasgow	6	17	23	7.8	2.4
Elsewhere					
Totals	146	148	294	100.0	31.2

[Source: Livingston Development Corporation 1000 House Survey.]

According to these figures 69% of the working heads of households work within the New Town. According to the figures given in the Survey of Travelling, July 1967, 53% of the males and 36% of the females (49% altogether) in active employment work within the New Town. This indicates that whereas a large proportion of the heads of households may be employed in Livingston the majority of others are working outwith the New Town. It is possible to analyse these figures further. In Deans 58% of the heads of households work outwith the designated area while the figure for Craigshill is only 21%. Conversely in Deans 42% of the heads of households work within the designated area and 79% of those in Craigshill do so. This relates to the stages in the development of the nearby industrial areas and the length of settlement of Deans and Craigshill. Furthermore many of the earlier residents of Livingston Station found work with the British Motor Corporation after the closure of the shale mines. About 50% of those heads of households living in Deans and working outwith the New Town are employed in the vehicle industry and the majority of these are with the British Motor Corporation. The second largest group working outwith Livingston are construction workers, the proportions living in Deans and Craigshill being about the same. Of those heads of households working within the New Town the largest number is employed in the metal manufacturing industry and this is particularly marked in Craigshill where 49% of these people are thus occupied. Construction work occupies a third of the heads of households who work within the New Town. In Livingston 57% of the heads of households are occupied by metal manufacture and construction work together.

This occupational structure is determined partly by the nature of the nearby industries, by the stage of the town's development, and by the selection that comes about through the housing priority list. Livingston Development Corporation has given priority as follows:

- (1) Glasgow overspill.
- (2) Employees in new industry, service, distribution and commerce (including Livingston Development Corporation) not included under priority (1).

- (3) Tradesmen in the building and construction industry not included under priority (1).
- (4) Employees (not included in priority (1)) of B.M.C., their car collection and catering companies, and other specified industries outside the New Town for which housing will be provided by special commitment.
- (5) Midlothian and West Lothian County Council staff employed on work or projects in the New Town area, not included in priority (1).
- (6) Wife employed within categories (2), (3), (4) or (5) above.
- (7) Persons having close blood relations in the New Town not included in the above priorities.
- (8) New household originating within the town.
- (9) Rehousing of families from original houses within designated area following closure or redevelopment or approved transfer from local authority or Scottish Special Housing Association houses.
- (10) Employees in industry adjacent to town.

Table 9.4 Allocation of houses

<u>Priority</u>	<u>up to March 1967</u>	<u>1967-68</u>	<u>Total</u>
1	76	53	129
2	350	430	780
3	120	197	317
4	103	47	150
5	18	22	40
6	-	-	-
7	30	31	61
8	-	-	-
9		(270 at Livingston Station (427 at Craigshill	
10			81

The range of employment in and near a New Town will have an influence on the size and character of the population. As in all New Towns with an unbalanced age structure, there is a relatively small demand for employment from school

leavers or married women during the first few years. According to the results from the Travelling Survey July 1967, 31% of the women in Deans who are employed, work within the New Town and an equivalent number work in Edinburgh. 43% of the women in Craigshill who work have their occupations in the town while 28% go to Edinburgh. This is probably because more work for women is available on the Houston Industrial Estate than near Deans. The numbers in both districts who work elsewhere, are considerably smaller. The same source states that 19% of the employed residents (16% of the men and 30% of the women) work in Edinburgh.

Another common feature of the newest towns is the limited development of service and distributive trades although ultimately approximately half of the working population might be employed in them. For this reason the Livingston Master Plan Report stated that from the experience of other New Towns, it seems it will be necessary to have a certain amount of out-commuting in order to obtain a balanced and diversified employment structure.

Table 9.5 Socio-economic group of head of household

Professional workers	101
Employers and managers	47
Foremen, skilled manual workers, own account workers (other than professional)	431
Non-manual workers	155
Personal service workers, semi- skilled manual workers, and agricultural workers	165
Unskilled manual workers	63
Armed forces and persons with inadequately described occupations	38
	<hr/> 998 <hr/>

(Note: This cannot be compared with previous socio-economic group tables because this only takes into account the head of the household.)

[Source: Livingston Development Corporation 1000 House Survey.]

Although this table does not take account of the whole male population as the Tables in earlier chapters have done, the high proportions of skilled and semi-skilled manual workers are significant.

Summary

Although Livingston has only reached a population total of about 7,000 people this New Town provides a basis for the comparison of the effect of the town plans on the geographical nature of the area. The town has not been planned as a group of neighbourhood units yet the formation of districts has a few characteristics in common with neighbourhood units. The planners still aim to keep major arteries away from residential areas, and to use these routes as boundaries to the districts. They still aim to have every child within walking distance (the distance depending on the age of the child) of his school which is to be located where no main road will need to be crossed. In both Deans and Craigshill shopping centres have been planned although they will not be built in all districts. At present, both Craigshill and Deans are quite separate from any other residential areas. Although there is no aim at self-sufficiency it is hoped that Livingston will not become a dormitory settlement to Edinburgh, while a continual effort to improve the "balance" of the population is made.

The value of studying these two districts further will be to determine whether in fact there is a certain sense of cohesion caused by the interaction of residents at this stage of development, in spite of the fact that the planners have not recognized the existence of neighbourhood units. Neither district is complete and both are very much dependent on other urban areas for all but their immediate needs and essential services. Furthermore it will be seen that the majority of residents still have strong ties beyond the New Town and as 63% of the new households (July 1967) have cars (60% in Deans South and 65% in Craigshill) the population is highly mobile. Deans has a nucleus of people who have always lived in Livingston Station and whose ties are in or near the Lothians Regional Survey Area so it is possible that further differences between Deans and the completely new development of Craigshill will be found.

CHAPTER X
CUMBERNAULD

The location of a New Town at Cumbernauld-Condorrat was recommended in the Clyde Valley Regional Plan, but unlike East Kilbride which was suggested at the same time, the designation order did not come until a lapse of about ten years after the first group of British New Towns had been commenced. Thus Cumbernauld was designated in February 1956. With its markedly different plan and conception, Cumbernauld became the first of the Mark 2 towns.

A major reason for building Cumbernauld was to help rehouse a proportion of Glasgow's overspill population, and 80% of the target population of 50,000 people were expected to migrate from Glasgow. Ultimately the target population has been changed to 70,000 people. By March 1968 the population had reached 23,440 with nearly 70% housed in Cumbernauld under overspill agreements.

The designated area which lies wholly in the county of Dunbarton and the parish of Cumbernauld covers 4,150 acres. It is elongated in shape, stretching over an area five miles by two miles. The New Town is situated between Glasgow and Stirling about fourteen miles from the centre of both. Coatbridge and Airdrie lie six miles to the south and Kilsyth is four miles to the north-west.

The physical features of the area have had an influence on the plan. Limitations to building are imposed by fire-clay deposits in the south-east and coal-mining in the north-east. The eastern third of the designated area lies mainly on north-west facing slopes that have suffered from extensive mining which leaves scope for development only in the south. Fireclay workings are not expected to affect the northern part of this section. The western part between the railway line and the A80 is occupied by a ridge rising from 260 feet to 480 feet and extending in a north-east - south-west direction, with a smaller outlier stretching as far as Condorrat. Between these is the Pollockshole Gap. Because of coalmining, sterilisation has been necessary in parts south-west of the line from Ravenswood Farm to

High Pollockshole, to Langlands and Auchenkilns. The steepest slopes around the ridge are unsuitable for building so this feature limits residential and industrial building in those areas. Other parts of the area that are not easily given over to construction are areas of moss, peat and soft ground where there has been inadequate drainage of some more level areas. On the whole the boulder clays in the hillier part are well-drained and building is possible on the gentler slopes.

The Clyde Valley Regional Plan proposed that the town should be built on the ridge south-west of the existing village of Cumbernauld rather than using the settlement to serve as a nucleus of the town centre. The town was planned to extend two miles along the ridge between the Cumbernauld Village and Condorrat but without touching either of them, although there was no doubt that the effect of a major settlement so close to them would be considerable. Cumbernauld Village was to have been redeveloped only to the extent necessary to rehouse the existing population when the line of the main road was determined, but it was to have been kept as a separate community while the New Town grew up on the hill top.

It is significant that the principle of planning by neighbourhood units in the Mark 1 towns was abandoned and replaced by a plan favouring a compact, high density settlement in Cumbernauld with all major facilities being concentrated in the central area. An essay entitled, "Cumbernauld New Town" distributed by the Cumbernauld Development Corporation has this statement:

"A compact plan can well result in the discarding of the neighbourhood concept. In saying this we do not argue against the provision of primary schools, churches, shops, meeting halls and public houses, etc., related to the needs of the various groups of people but rather that these facilities should be provided where they are needed and not in accordance with any system of patternmaking; because they are provided the town should not necessarily be broken down into well defined, more or less self-contained units. In other words the facilities are provided for the people and not the people arranged to make use of the facilities."

However, the second revision of the Planning Proposals took into account that the target population was increased to 70,000 and stated that the hilltop site would no longer be adequate, so development of the four nearby villages, Condorrat, Cumbernauld Village, Wardpark and Abronhill, would be necessary. This would result in a changed design consisting of a cluster pattern with one major centre surrounded by four separate urban units with their own centres, schools and amenities, giving them the characteristics of neighbourhood units linked together and to the hilltop by the road and footpath system. Condorrat, for example, is envisaged as a compact settlement of 6,250 people on twin hilltops east of the present village and surrounded by a Green Belt. It will, like the other villages, be a self-contained satellite village with two primary schools, medical services and shops. Cumbernauld Village is now planned to have additional residences, along with improved facilities to serve the increased population. Likewise, Abronhill will be a separate entity with a wedge of woodland in a valley and a railway line between it and the hilltop.

Hence the compact town having all houses within about a mile of the centre and yet within fifteen minutes' walk of the countryside, has proved insufficiently flexible to enable the addition of several thousand population, especially when physical features limit an outward expansion as well.

In 1968 it was realized that even this form of clustered pattern would not accommodate more than 62,700 people so if the target remains at 70,000 the remaining 7,300 will have to be provided for outwith the designated area in order to keep the Green Belt around Cumbernauld intact. One of the aims of this high density compact urban development has been to provide a marked contrast between town and country, and differs from East Kilbride where there has been an effort to introduce a rural atmosphere into some parts of the neighbourhood units.

Open Space

Around the built-up area on the hilltop as well as around the villages of Cumbernauld, extends a peripheral Green Belt reserved for recreation and open space according to the needs of the town. Pedestrian routes through the belt link the satellite villages and the hilltop. Part of this peripheral area is occupied by the Ravenswood Playing Fields south-west of the Seafar development. Here six tennis courts, four football pitches, a bowling green, a hard cricket wicket and pavilion have been provided. North-east of this the land is steep and broken and has been planted in woodland. To the south-west of Cumbernauld Village playing fields have been established to serve people in the north-east of the town. Trees cover the steeper slopes between Cumbernauld Village and the main hilltop. The area that formed the Cumbernauld House policies has been reserved for the main town park. An area of open space extends from the Slamannan Road through Vault Glen to the west of Abronhill and links with the Abronhill Common; while another area stretches between Abronhill and Whitelees Industrial Area. Both sections join south of Cumbernauld High School. The southern and south-western peripheral area of the town is devoted to a golf course, picnic grounds, cemetery, allotments and woodland. The area of level land south of Condorrat Village may be used for additional playing fields.

This extensive ring of open space provides the chief playing fields and recreational areas for those on the hilltop, but within the villages small areas of open space have been allotted at the rate of 3.4 acres per 1000 population. The limited amount of open space that does exist in the residential areas on the hilltop, is devoted primarily to toddlers' play spaces with such equipment as sand pits and groups of boulders, and to older children's playgrounds which measure about one-third of an acre and are supplied by the District Council with swings, roundabouts, and adventure type apparatus. Two examples of these exist in Kildrum. These small access roads do not provide

Communications

The open spaces within the built-up area and around it are reached mainly by the footpath network which also extends beyond the designated area. Pedestrians have been considered a great deal in the planning of the town, but a view of the landscape shows the road pattern is the dominant feature.

Although the town is surrounded by a Green Belt the road pattern forms an additional boundary in some parts. The A80, a dual carriageway, forms a marked boundary from north of Cumbernauld Village to where it reaches the Auchenkilns Roundabout west of Ravenswood. A second radial road acts as another physical boundary to the built-up area, the road running north-east - south-west from Abronhill through the Blairlinn Industrial District and southwards. In the south-west is the A73 which leads from the Auchenkilns Roundabout towards Airdrie and the south. Between the A80 and the Forest Road and Lenziemill Road is a third north-east - south-west radial road. It runs from the junction with the A80 at the Old Inns Interchange north of the village, southwards to the Muirhead-Braehead Interchange, and from there towards the south-west along the top of the ridge through the town centre as far as the A73. From this major route called Central Way which has a tendency to divide the town into two, are two main radial link roads, Lye Brae and Jane's Brae, that run south-eastwards down the hill to meet a main north-east - south-west route at the bottom.

These main roads in the form of radial or radial link roads connect with feeder roads at controlled junctions and have no frontage development or other access.

Two inner ring roads almost encircling the ridge act as feeder roads, joining the Central Way at interchanges north-east and south-west of the town centre. The roads enable traffic to move to local development roads, and like the main roads they also have no frontage development. From the feeder roads are local development roads which, mainly in the form of culs-de-sac, provide access to buildings. These small access roads do not provide

through-routes between main town roads so vehicles moving from one part of the town to another are forced to use the ring roads or main radial roads, thus involving a relatively long journey. Complaints from residents indicate that cyclists tend to make more use of the footpaths than the roads because of the longer journeys. Although the aim of the planners was to provide a compact town so that everyone was within walking distance of the centre there has been a demand for local bus services on the hilltop so it appears that a problem of mobility within the town still exists. Buses link Cumbernauld with Glasgow and other nearby towns.

The hierarchy of roads described above has been planned in order to keep the different functions of the roads distinct from each other. No footpaths are found alongside any of the main town roads so that pedestrian and vehicular traffic are segregated. The movement of pedestrians has been planned so that no pedestrian should need to use the same route as a vehicle. However, where road access is more direct, pedestrians can be seen scrambling over fences and other obstacles in order to use the quicker route. The footpaths have been planned so that they lead to the major and minor foci of the town such as the central area, playing fields and shops. Therefore footpaths lead to and from the Central Area in all directions. One path through Carbrain to the industrial areas at the station and Greenyards and towards the new golf course joins another footpath leading north-east - south-west through the Green Belt. Footpaths through Greenfaulds at the southern end of the hilltop lead to the Blairlinn Industrial Area and will eventually serve a town stadium at Lenziemill and join other pedestrian routes leading east and west. In particular, the footpaths link the residential areas with the peripheral open space, so that even for those living as far away as Abronhill and Carbrain it is possible to reach the playing fields at Ravenswood and Cumbernauld Village on foot.

To ensure that no pedestrian needs to walk over anything but a local access road, footbridges and underpasses have been constructed. Two footbridges have already been built in spite of the emphasis on segregation of pedestrians and vehicles.

over the railway line and Vault Glen to Abronhill Village. In this part the paths lead through Abronhill to Whiteless Industrial Area and towards Wardpark. The Tollpark and Wardpark Industrial Areas can also be easily reached by pedestrians. In spite of this, in a 10% Sample Survey carried out by the Department of Sociology at the University of Strathclyde (University of Strathclyde, 1968), it was found that of 468 people interviewed only 37 (7.9%) walked to their work. Even if one assumes that of this number only 40% were working in Cumbernauld the importance of other transport, chiefly car, is brought out.

Further suitable crossings are proposed over the A73 and A80, and under the Glasgow Road, and more paths for country walks in the south-east are to be laid out. In some cases the location of the footpaths has actually determined the siting of social facilities within the housing areas. The footpath system separate from the roads has been introduced into these areas in three different ways. The Radburn system or a modified Radburn system gives road access to one side of a row of houses and provides direct access to each house by car. This usually means that if garages are to be near the houses they are built in small groups scattered throughout the area. A different pattern, using a "meshed" system of roads and footpaths has motor vehicles entering the housing area by culs-de-sac. A series of spur footpaths are linked to a main footpath and the garages are at the ends of the terraces. In the third system where garages are placed around the perimeter of a block of houses to keep the area clear of permanently parked cars, culs-de-sac are used for access to buildings. The distance from the house was given by some householders as the reason for not using a garage.

The team from the University of Strathclyde also found that in spite of this widespread footpath network 34% of the households did not consider the system adequate and 60% of their reasons related to it being too long, indirect, complicated or inconvenient. Other reasons included reference to poor surfacing, icy conditions in winter, too many cyclists, and the number of footpaths leading to roads in spite of the emphasis on segregation of pedestrians and vehicles.

Certainly the size and shape of the town enables more importance to be attached to the pedestrian system than in towns covering more extensive areas. Pedestrian routes in Cumbernauld are considered important as lines of communications as well as interlocking elements in the recreation areas.

The railway line near the foot of the ridge has access to the South Carbrain ring road as well as a footpath leading directly to the town centre. Now that the Buchanan Street station in Glasgow has been closed to passenger traffic a half-hourly diesel service from Monday to Saturday, co-ordinated with the Blue Train service at Springburn, makes it possible to travel from Cumbernauld to Queen Street, Glasgow in thirty minutes. Buses are nevertheless used more often than trains for shopping expeditions out of town, the journey to work or for recreational purposes.

Cumbernauld now has an airstrip near the Wardpark Industrial Area for light aircraft, especially for the use of businessmen. It is likely to have little effect on general movement in the town.

KILDRUM

Although neighbourhood units were not planned in Cumbernauld, the features of the town that have been described point to certain areas behaving as separate units. This does not mean that one can describe them as neighbourhoods. Kildrum is one such area. It is surrounded by part of a ring road - Kildrum Road - and as this road has no frontage development the houses tend to turn inwards rather than towards other built-up areas. To the east is Vault Glen, open space and the railway line so that it is well separated from Abronhill. To the south-west Kildrum is separated from Carbrain by Lye Brae, a dual-carriageway radial link road, with trees and the Kildrum Parish Church between the residential area and Carbrain. Three foot-bridges encourage pedestrian contact with the residential area to the south-west. To the west of Kildrum the

Muirhead-Braehead interchange and complex system of roads makes an efficient boundary with the central area and Seafar. Further mention of Kildrum will be made in relation to other features of Cumbernauld.

In the Second Addendum Report to the Preliminary Planning Proposals statistics were given for population groupings on the hilltop (Cumbernauld Development Corporation, 1962, p.12).

Table 10.1 Proposed population for areas in Cumbernauld

<u>Population Grouping</u>	<u>Proposed Population</u>
Hilltop	
*Kildrum)	
*Park)	10,926
*North Side (includes Seafar and Ravenswood	11,469
*Carbrain	11,739
*Greenfaulds	8,730
Central Area	5,720
	48,584
Villages	
Wardpark	3,300
Abronhill	10,850
Condorrat	5,320
Cumbernauld infilling schemes	2,250
	21,720
Existing population at Cumbernauld and Condorrat	2,300
	<u>72,604⁺</u>

Kildrum was the first area to be built and as a result was the first part of the town to feel established. The names of the building developments are used by the people living in Cumbernauld, to designate definite parts of the town.

*The group is divided into a number of contract areas for building purposes.

⁺ Since these proposals were published these figures have been revised. The Cumbernauld Development Corporation's twelfth Annual Report stated that 62,700 would be the maximum population that could be accommodated in the designated area.

Housing

The intention has been to build with gradually increasing densities towards the centre of the town so that generally areas with 120 persons per acre will be nearest the centre while the outer areas will have densities of about 70 persons per acre. The average density is expected to be almost 85 persons per acre. The densities will not vary directly with distance from the central area because of variations in topography. The gentler slopes to the south of the main hilltop are more suitable for two-storey buildings than the broken, steeper, northern slopes. Some hold the belief that people who have lived previously all their lives in crowded conditions in Glasgow, are in fact happier if they can move to another densely populated area, but in the Strathclyde survey one person in eight is reported as having made a complaint about the lack of space and the smallness of the rooms.

The emphasis on compactness without pockets of useless land is partly because some planners think that to achieve urbanity in a town it is necessary to adopt densities higher than those in most of the Mark 1 towns, and thus emphasise the difference between the built-up area and the surrounding countryside. They also believe that by this method they can obtain an integrated design, and at the same time, limit walking distances either between buildings or upstairs to flats and maisonettes. With this high density of population some single aspect houses and patio types have been planned in order to ensure privacy.

Certain sites have been set aside for better standard housing, as in South Kildrum, Muirhead, Ravenswood, Greenfaulds. High rise blocks with semi-managerial apartments have been built or planned in a few areas as at Wardpark, because of its comparative seclusion; and land has been set aside for development by private enterprise at Abronhill and Condorrat. Thirty-five penthouses above the shops in the town centre set this apart as a more exclusive part of the town. Park, adjoining Kildrum, is considered primarily as a high amenity area with dwellings of managerial and semi-managerial standards and an area of houses for owner-

occupation. Densities in this particular area are much lower than elsewhere with an average of 42 persons per acre. Houses for owner-occupation and higher standard dwellings have been built in various parts of the town but have been constructed in larger groups than in earlier towns. Furthermore there has been a move to increase the numbers of higher standard and amenity houses and the number of houses for owner-occupation in the attempt to achieve a more "balanced" community in each part of the town as well as in the town as a whole. The graduated rent system operating in all the Scottish New Towns has helped to encourage people in the lower income groups to come to the town, and it is considered that superior accommodation might encourage people in the higher income groups.

Flats have been let to the Joint Y.M.C.A./Y.W.C.A. by the Corporation, for the use of young people wishing to live in the town but not in a position to rent a home of their own.

Like the other towns there is a certain demand for transfers from one house to another. Of the 256 transfers in the year 1967-8 the Corporation found the majority were due to a need for higher standard accommodation.

Population Structure

The structure of the population throughout the town is likely to vary from one part to another in the same way as it does in other New Towns. Hence, because Kildrum was the first area to be almost fully developed with the first houses being occupied in March 1958, the population probably shows slightly more balanced characteristics than other parts of the town.

For Cumbernauld, overall, a youthful structure is evident with marked bulges in the 0-9 years group and 25-40 years group. Like the other New Towns there are also a markedly small 15-24 years group and small group of older people (see Appendix 1). A current policy is to encourage parents as well as sons and daughters of residents to settle in Cumbernauld, with a view to strengthening family ties and establishing a more balanced age structure, though Glasgow

overspill families and industrial workers have prior claims. Two sites have been reserved at Muirhead and Abronhill for homes for elderly and handicapped people as well.

The socio-economic balance also affects the town's development. Four major factors affecting socio-economic balance are:

- (a) the socio-economic characteristics of the initial population before designation;
- (b) the scheme of priorities given to applications for houses;
- (c) the kind of dwellings available;
- (d) the employment requirements of the industries in the town and nearby.

The socio-economic balance of any one housing group is not necessarily like that of the town as a whole.

Table 10.2 Employment of householder, 1967

	<u>No.</u>	<u>Percentage</u>
Semi-skilled and unskilled manual	52	11.4
Skilled manual	166	36.4
Junior and intermediate non-manual	165	36.2
Foremen and supervisors	17	3.7
Employers and managers	21	4.6
Professional - employees	30	6.6
Others in employment	5	1.1
Total	<u>456</u>	<u>100.0</u>

[Source: Cumbernauld 67.)

As in the figures quoted for Livingston a significant difference appears between the figures in the Sample Census 1966 and the figures obtained from the Strathclyde Survey. The Census figures account for all males over the age of 15 years whereas Table 10.2 accounts only for the heads of households. There is also likely to be a slight change in employment patterns from year to year as new industries and businesses are established. It is the latter reason that accounts for the difference in the number of white collar workers (33.3% in the Census and 47.4% in the Survey).

A rapid increase in the number of government and civil service posts has taken place in the New Town. This must be related to the fact that 41.8% of the householders in Cumbernauld travel to work in Glasgow where many white-collar workers are employed.

In order to create what is considered by the Corporation as a better socio-economic "balance" some of the rules for the allocation of houses have been relaxed. For example, they have granted a limited number of applications for tenancy of "higher income" housing from academic, commercial and industrial sources which would not previously have been considered (Cumbernauld Development Corporation, Ninth Annual Report, 1965). In addition, more houses will be built for sale, land will be made available for people who undertake to build their own houses within the framework of a scheme prepared by the Corporation, and private developers will be encouraged to build under similar conditions. In March 1968, for a population of 23,440 people there were 6,144 houses in Cumbernauld and of these 5,893 were let by the Corporation. Few houses have been sold up to the present time.

Two other features related directly to the self-containment either of a housing group or the town are the origins of the immigrants and their place of work. According to the Annual Report for 1967-8, 76% of the householders moved from Glasgow, 3% from Dunbartonshire, 19% from elsewhere in Scotland and 2% from other parts of the United Kingdom. Of those moving from Glasgow almost 70% moved as a result of overspill agreements. The proximity of Cumbernauld to Glasgow cannot be underrated when considering methods of establishing cohesiveness among the town's or a district's population. This link with Glasgow is emphasized by the fact that over 40% of the householders are employed in the city. As a result, the self-sufficiency of the town is limited.

Table 10.3 Present place of employment of the householders

	<u>No.</u>	<u>Percentage</u>
Cumbernauld	199	40.5
Glasgow	205	41.8
Dunbartonshire	5	1.0
Kirkintilloch	1	0.2
Kilsyth	0	0
Airdrie/Coatbridge	2	0.4
Remainder of Lanarkshire	17	3.5
Denny, Falkirk or Grangemouth	9	1.8
Elsewhere	21	4.3
Not employed	32	6.5

[Source: Cumbernauld 67.]

One of the explanations given for more than half of the labour force in Cumbernauld being employed outside the New Town is the non-availability of the kind of work that would make use of the skills available, as in the case of office work. Until recently only a limited amount of clerical work, or work for women, has been available. Manufacturing has provided most employment opportunities.

The first firm to become established in the area was Burroughs, manufacturers of office machinery, who at present employ over 2,000 workers and expect to employ about 4,000 ultimately. They began production in January 1958 and many of the first employees found accommodation in Kildrum. Efforts to diversify the industry in the town have led to development of other industries such as the manufacture of label-making machines, timer window frames, carpets, shirts, parts for the motor industry and light engineering.

The location of the industrial areas is away from the residential areas, other than for a few workshops around communal service yards in parts of the residential zone. The first industrial area to be established was Toll Park in the north beyond Cumbernauld Village and it is here that Burroughs has its factory. Wardpark, Whitelees, Cumbernauld Station and Greenyards, Carbrain, Lenziemill

and Blairlinn are the other areas zoned for industries, warehouses, depots and some commercial development. Those on the south side of the town at the station, Greenyards and Carbrain, are located where they can make use of railway sidings. The majority of industrial areas require Cumbernauld residents to move away from the immediate vicinity of their homes and although footpaths lead from the residential areas only 8% of the householders normally travel to business on foot, although 40.5% of them work in Cumbernauld.

Shopping Facilities

The basis of shopping on the hilltop is a two-tier system. Scattered general shops selling day-to-day goods, have been built in the housing groups, with an average of one shop serving 350 or 400 houses. More than a dozen of these were open by 1967, four of them in Kildrum.

The main shopping facilities are found in the town centre, situated on the crest of the ridge. The first of three phases has now been built, the scheme being to build each phase according to the growth of the town. The temporary shopping centre that existed while the first phase was being built is no longer used for retail purposes. The variety of shops and services now in the centre, including a number of national multiple stores, are a supermarket, department store, co-operative society, chemist, china/fancy goods dealer, cleaners and dyers, hairdresser, newsagents, travel agents, bakers, licensed delicatessen, and ironmonger, as well as shops selling shoes and leather goods, radios and television sets, fruit and vegetables, fish and meat. Five Scottish banks and the offices of the Housing and Social Development Department, the Rent Section of the Finance Department and Public Relations Section of the Corporation have also moved there. A restaurant, a fish and chicken bar and a licensed betting office add to the variety of facilities at the centre. A regional library has been opened with the establishment of the first phase of the centre. Previously with no neighbourhood shopping centres on the hilltop it was necessary for residents to travel

elsewhere for many of their requirements, the two towns visited most regularly for shopping expeditions being Glasgow and Falkirk.

With the growth of the satellite villages, centres with several shops supplying chiefly convenience goods, are being established. These can be equated with a neighbourhood shopping centre such as that found in Calderwood, East Kilbride.

Similar to many other New Towns, a significant feature in the shopping pattern has been the use of mobile shops. The Strathclyde University team found that 43% of the households make use of these and the most frequently used were butchers, bakers, general traders and fishmongers.

Table 10.4 Transport used for shopping expeditions

	<u>Local Shops</u>		<u>Town Centre</u>		<u>Out-of-Town Shops</u>	
	No.	%	No.	%	No.	%
On foot	426	93.6	271	55.8	2	0.4
Cycle	1	.2	1	.2	-	-
Motorcycle	-	-	-	-	-	-
Car	20	4.4	122	25.1	198	44.1
Car passenger	-	-	9	1.9	16	3.6
Bus	8	1.8	83	17.1	139	31.0
Train	-	-	-	-	94	20.9
Otherwise	-	-	-	-	-	-
Totals	<u>455</u>	<u>100.0</u>	<u>486</u>	<u>100.0</u>	<u>449</u>	<u>100.0</u>

[Source: Cumbernauld 67.]

It is not surprising that journeys to local shops are mostly on foot. Although the majority of people have under a mile to go to the town centre 27% of the population rely on cars and another 17% rely on public transport. The convenience of vehicular mobility for expeditions that involve taking young children or carrying parcels is clear. Furthermore, although the route by car might be considerably further than the pedestrian route, the hilltop is affected by biting south-westerly winds and the car provides shelter.

The town centre has parking facilities immediately under the shops, so it is only a short distance by escalator, lift, ramp or stairway to the stores. Bus stops are also placed below the shops. Ease of parking might even encourage people to drive to the centre.

For shopping, then, residents in Cumbernauld can use the travelling shops, general corner shops or the town centre. Trips to other shopping areas, and Glasgow in particular, are simple because in addition to the public transport system, the distances are short and car ownership is high (51%).

Recreational Facilities

Apart from the provision of shopping facilities the town centre fulfils other functions. Various businesses, services and entertainment facilities are found in the centre. At each end of the centre will be open spaces reached by principal footpaths leading from the housing areas on either side of the ridge. The west square will give access to civic buildings, St. Mungo's Church of Scotland, a hotel and commercial premises. The east end is planned to be devoted to such entertainment facilities as a cinema, dance hall and bowling alley, as well as the library, local and central government offices and business offices. Up until now no cinema has been built although occasional films are shown in the residential areas for the benefit of the children. A restaurant/function suite with a three-lane bowling alley, discothèque, bars and restaurant has been opened on the roof top. It has been suggested that the open space around the centre be landscaped with open terraces, trees, and an arena for sports events, exhibitions or fairs. At present it remains as a rough, very windy, open area bisected by the main road and crossed by a few footpaths.

Although the major community facilities have been or will be located in the town centre a considerable number have developed in the housing areas, chiefly related to the pedestrian system. Within the town at present there are seven community centres and meeting rooms, making an

average of one for 3,500 people. They have been built where they can serve local needs. For use by various interest groups, they are intended to form an integral part of a housing area. For example, in Kildrum a Community Association has its centre in a building that was used temporarily as a school. Tenants' meeting rooms and community rooms are used for church services, and by organizations such as the Red Cross, Boy Scouts, Junior Choir, Film Society, Operatic Society, Tenants' Association and the Toastmasters' Club. One tenants' meeting room has been taken over by Cumbernauld Old People's Welfare Association. Some groups have their own buildings. The Cumbernauld Theatre Group has leased part of a group of cottages in Park for use as a small theatre and the Y.M.C.A./Y.W.C.A. has buildings at Kildrum Farm, supervised by a resident organizer. A Riding School has been set up at Garnhall where fireclay workings make the land unsuitable for industry. Altogether about 200 organizations are found in different parts of the town. Co-ordination of these scattered groups has been attempted by the Cumbernauld Civic Trust, formed near the end of 1965. It incorporates a Council of Social Service whose aim it is to link all voluntary organizations and to promote social welfare work in the community. This Trust has set up a Citizens' Advice Bureau. A Youth Advisory Service also tries to promote some co-ordination of activities and has sponsored some sporting events and a Commonwealth Youth Sunday parade annually.

Of the industrial firms, Burroughs, the largest in the town, has constructed premises in Carbrain with a games room, concert hall seating 300, and a lounge. The hall at the town centre will come into use when the District Council has funds to fit it out.

The villages of Cumbernauld and Condorrat have a total of four public houses while Kildrum has one and another is in the town centre. Also in the centre is a licensed hotel. The policy of the Corporation has been to build a small number of intermediate to large public houses with facilities for social activities, rather than a large number of small ones.

Because of their very locations the facilities in Kildrum tend to be used more by Kildrum residents and those in Seafar are used by residents of that area. This, of course, is one of the reasons for siting the facilities in the housing areas, but the emphasis on the town centre is minimal while awaiting provision of the sports and recreational facilities in the town centre associated with the second phase of development. The limited commercial entertainment at this stage of the town's growth also encourages people to travel to places like Glasgow, Stirling and Falkirk. This applies especially to car owners who have only a thirty minute drive to these places.

Health Services

A central health centre was opened when the first phase of the town centre was completed. There, are provided facilities for general practitioners, as well as specialist services with consultants, and diagnostic facilities for 12,000 people living in Carbrain, Ravenswood, Seafar and the central area. Eventually it will be extended to cater for 28,000 people. In addition there are facilities for family guidance, maternity, chiropody, X-ray, family planning and welfare food distribution based there, and the headquarters of dental services, health visitors and social workers. Another medical centre which is located near the Kildrum Primary School now serves the north-east end of the main hilltop, but earlier served all the New Town residents.

Schools

Primary schools are located in the housing areas away from main roads and feeder roads, but with access along the footpath system and a cul-de-sac road. At the beginning of 1967 seven primary schools, a secondary school and two Roman Catholic primary schools had been completed. In Kildrum are found the Kildrum Primary School and the Sacred Heart (Roman Catholic) Primary School. The primary schools in Cumbernauld have been allotted a minimum playing area as it is expected that use will be made of additional sites

on the edge of the town. In the tenth Annual Report of the Development Corporation is written, "School provision has to be assessed for primary and secondary education and for Protestant and Roman Catholic requirements of an area or neighbourhood at any one time". With such an unbalanced and changing population structure it seems that difficulty has been experienced in making this assessment early enough because more than once arrangements have had to be made for temporary accommodation. For example, in Abronhill nine patio bungalows were used until the primary school was completed. These are now taken over for a special school for handicapped children. Demountable classrooms were used in the North Carbrain area as another method of overcoming problems with school accommodation. Furthermore, a source of dissatisfaction of parents in Cumbernauld has been the way in which children have been moved from one school to another during the building period.

The Cumbernauld High School for children from 12 to 19 years has its own playing fields, three gymnasias and a swimming pool. It is situated on the edge of the town near the South Carbrain ring road. It caters for all Protestant children living in Cumbernauld. Our Lady's Roman Catholic High School is in the Ravenswood Area on the edge of the town near the Seafar ring road. The survey team from the University of Strathclyde found that 84% of the pupils in the town walk to school, an indication that there has been some success in providing accommodation within walking distance; 14% find it necessary or desirable to travel by bus. This number will include some of those travelling from the villages to the High School.

Throughout the town nine pre-school playgroups have been voluntarily organized. A nursery school functions all mornings and three afternoons a week. Other than for a few evening classes, the majority of people seeking higher education facilities have to go to Glasgow, Stirling or Coatbridge.

For the majority of pupils in Kildrum there are school buildings nearby and in a location that could enable them to form focal points within the community. However the

movement of children from one school to another does not induce the population to regard the school as an important place in their daily lives.

Churches

The last of the important community facilities to be described are the churches. Altogether, those in Cumbernauld Village and Condorrat, one at the town centre (St. Mungo's) and one each in Kildrum and Abronhill, make a total of five Churches of Scotland. The Episcopal Church of the Holy Name is also near the town centre and like the Roman Catholic, Baptist, Congregational Union and United Free Church it serves the whole population of its denomination. The majority of the churches are scattered throughout the town. For example, the Sacred Heart Roman Catholic Church is in Kildrum, the Baptist Church is in Carbrain, the Apostolic Church uses the community rooms in Carbrain and the Christian Brethren meet in the Muirfield Primary School in Seafar. Over three-quarters of the church-goers walk to church, but this does not indicate whether they go to church because the church is nearby or whether they would go, whatever the distance. (In the community 34% consider themselves unattached to any church and 43% attend regularly.) Three Churches of Scotland (Village, Kildrum and St. Mungo's) and the Episcopal Church have halls which are used by the various groups sponsored by the churches. Again the churches have had a big part to play in establishing a community spirit among their adherents.

Summary

In theory Cumbernauld has had emphasis in its design put on pedestrian-vehicular segregation, and on its compactness. An effort was made to locate residential areas so that everyone was within walking distance of the town centre. This plan proved insufficiently flexible when the population target was increased. Thus the "villages" had to be given the physical characteristics of neighbourhood units so that they were self-sufficient for their most frequent needs.

In the hilltop area neighbourhood units have purposely not been planned, the view being held that the amenities and facilities of the conventional neighbourhood unit, would be close enough for everyone's use if they were located either in the town centre or other parts of the hilltop.

Now that the town has reached approximately one-third of its present target it is possible to observe some of the results of the plan. Kildrum, the longest established of the housing groups can be taken as an example of the hilltop development. The roads and open spaces around Kildrum have been described and these boundaries help to give this part a physical identity of its own. The facilities in Kildrum, as in other housing groups have been located so that they serve the area. Because they have different sizes of catchment areas all the residents do not use exactly the same facilities. For example, although all might use the same medical centre they will not all use the same shop. The Kildrum Primary School caters for the education of Protestant children in Kildrum while the Roman Catholic children attend the Sacred Heart Primary School, so there is no need for most of the primary school children to leave Kildrum for their education. Secondary School children go to Cumbernauld High School immediately adjacent to Kildrum, but the Roman Catholic Secondary School is on the other side of the town.

The majority of the church-going population belong to the Church of Scotland or the Roman Catholic church and can attend their churches in Kildrum although the Abronhill Parish Church is a little closer to those who live at the east end of this housing group and might therefore attract a few Kildrum residents.

Single general stores, a public house, a medical centre, playgrounds for the youngest children and a community centre are among the facilities for the residents, but unlike the usual pattern of neighbourhood unit these are spread throughout Kildrum so that there is no major focal point. Neither does the road or footpath pattern suggest a single focus. Some features normally associated with the conventional neighbourhood pattern are missing in Kildrum. For example,

no group of neighbourhood shops or services and no local playing fields and kick-about pitches have been provided. However, it is not possible to conclude that because an area is without certain facilities and without a single focus, it is not a social and geographic unit which has come into existence through the interaction of its residents.

One feature that will help to determine the amount of interaction is the attraction of facilities outwith the housing group, and the distance these attractions are from that group. Many residents in Kildrum had to make use of the temporary shopping centre until the first phase of the shopping centre was completed, but many also continued to buy weekly needs in Glasgow and other nearby centres. The new centre is now being more widely used. Nevertheless many of the people still visit friends and relations and find their entertainment in Glasgow. Because the people moved to Kildrum well before most of the facilities existed in the New Town, many of them have perpetuated or formed ties with other towns, and have no attachment to any part of Cumbernauld - not even the town centre. The time lag between settlement and the provision of facilities has in fact been a force acting against cohesion.

In addition, with more than 40% of the householders in Cumbernauld working in Glasgow, their links and interests are primarily not just outwith Kildrum or their housing group, but also beyond the town. It is possible that with a large group working for Burroughs some cohesion within the housing group could develop, but this is doubtful even with a social centre catering for them in Carbrain.

Had the town centre and other facilities been built considerably earlier in the town's development, providing a major focus within the town, the ties with Glasgow might have been somewhat weaker by this time. It is possible that the common use of the centre, even if it were outside the geographical area of the housing group, might have helped the cohesiveness of the population.

Kildrum lacks the physical characteristics to make it self-sufficient, and dispersal of its population for recreation, shopping, work and business militates against

much interaction within the area. Yet this is not proof that cohesion is lacking. A certain community spirit is evident, particularly in the areas where young children and parents are more tied to their homes. This is a feature common to pioneering days of nearly all the New Towns and cannot be related to a specific area or housing group. Kildrum could in fact, eventually become a neighbourhood although never planned as one.

CHAPTER XI

IRVINE

Irvine, the fifth of Scotland's New Towns was only designated in November, 1966 after the initial "Draft New Town (Irvine) Designation Order" of February 1966 had been modified. The Planning Proposals were published in June 1967. As a result Irvine New Town has barely been commenced, but a brief description of the proposals will relate it to the plans of the other Scottish New Towns.

Irvine is to be an expanded town, in that Irvine and Kilwinning between them had a population of almost 25,000 in 1961 (Irvine 16,911 and Kilwinning 7,289), and is likely to provide for an expansion of 55,000 or more. Other small settlements in the area include Girdle Toll, Springside, Bankhead and Dreghorn.

Its location is 25 miles south-west of Glasgow, but it is considerably closer to a number of smaller Ayrshire settlements - Kilmarnock 8 miles, Ayr 12 miles, Prestwick 9½ miles, Troon 7 miles, Ardrossan 13 miles, Saltcoats 6½ miles, and Stevenston 5½ miles.

With a history of settlement since Roman times Irvine received Royal Burgh status in the thirteenth century and by the nineteenth century had flourishing coal and linen industries as well as a busy port. With the silting up of the port and the recession of the main industries, depression hit the town early this century, but a decade ago an industrial estate was constructed in the south-west

of the town. Kilwinning was also an old settlement and has recently had an industrial estate established.

The physical environment, as in the majority of the New Towns, has had an influence on the form of the plan. The designated area consisting of 12,440 acres is on the west coast near the Firth of Clyde opposite the Isle of Arran, and lies in a depression between the hills lying behind Ardrossan in the north and Dundonald in the south. From the beach and dunes along the coast the land rises to the foothills of the Southern Uplands. The River Garnock, Lugton Water, River Irvine and Annick Water follow winding courses through gently undulating country before flowing into Irvine Bay. The strips of flat land alongside the rivers are made up of alluvium, and the area around the loop of the Irvine north of Low Green is still liable to flooding thus making it less suitable for building. Shewalton Moss to the south is also unsuitable for this purpose, as are other smaller areas of peat and bog. Subsidence from past coal mining is thought to be complete but fireclay is still mined and sand and gravel are quarried. Establishments already occupying parts of the area are the Ayrshire Central Hospital, east of Kilwinning; the radar station at Gailles belonging to the Ministry of Aviation; two army stations; and the Imperial Chemical Industries' factory at Ardeer, which is surrounded by a safety zone, making it unavailable for urban development. The limitations caused by these features have to a certain extent determined the shape of the town as a belt extending in an arc 5 miles long and about one mile wide from Drybridge in the south to Kilwinning in the north and touching the eastern part of the built-up area of Irvine.

The results of earlier experiences in Scottish New Towns have also had their influence on the plan. The "Irvine New Town Planning Proposals" describe the proposed structure of the New Town as a "series of districts based upon walking distances, containing residential, industrial or recreational development, and related uses, connected to each other and the town centre by the public transport line, roads and footpaths". The consultants likened the plan form to

"a necklace, the beads of varying shape and size representing the units of development and the string the public transport system" (Wilson and Womersley, 1967, p.63-4). Expansion of the town is possible through the addition of further "beads" thus accentuating the linear principle (Fig.11.1). The term "neighbourhood unit" has not been applied, but the environmental areas are to have extraneous traffic excluded; and in order to deal with a high level of car ownership a hierarchy of roads has once again been planned, along with the segregation of pedestrians and vehicles. The current planning policies in Great Britain have been putting considerably more emphasis on the provision of adequate public transport and this plan is no exception.

It appears then, that the future communications pattern is going to have a significant influence on the form of the town. The plan aims to have everyone within a ten minute walking distance of the main communications' spine so that the residential areas will be no more than 600 yards on either side of this. The spine is to form a long corridor through the middle of the new development and will contain a motorway with controlled junctions at approximately one mile intervals at the peripheries of various districts. Between the two carriageways the central reservation is to be kept for a separate rapid system of public transport. Public transport stops will be in the centre of each district. Roughly parallel to this spine route are to be eastern and western flank roads close to the new development, thus accentuating the boundary between the built-up urban environment and the countryside.

Between these flank roads and crossing the spine road will be at least three cross connections. These roads, spine, flank and cross routes, will provide the primary road system which connects the town with inter-urban routes as well as providing the link between district distributor roads. The district roads which will normally be peripheral to the districts, will provide the vehicular routes at district level, taking traffic from the primary network to the local development roads, and will have no frontage access. Residents will therefore be forced to look inwards

Linear principle suggested for Irvine

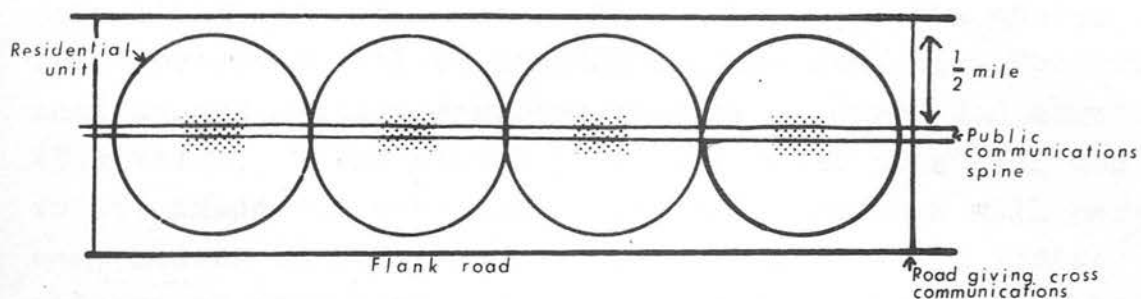
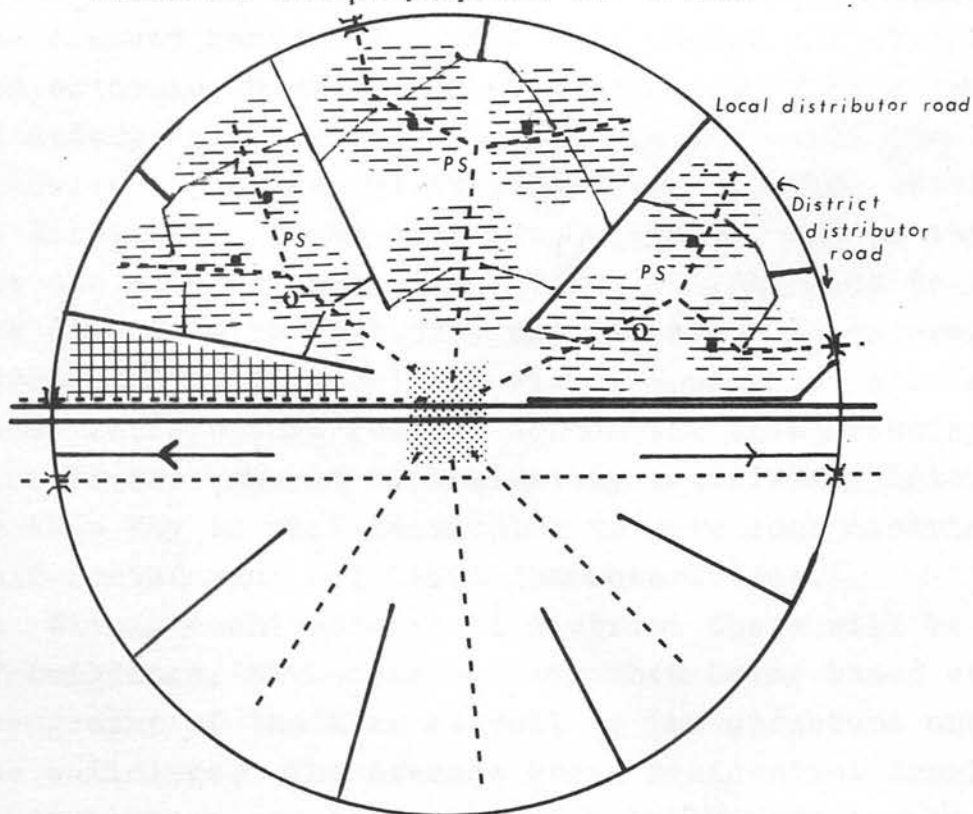


Fig. II.1

Form of residential district proposed for Irvine



- | | |
|-----|---|
| | District centre with churches, health centre, public houses, community-youth centre |
| | Housing |
| | Secondary school or light industry |
| PS | Primary school |
| | Corner shop |
| | Tenants' meeting room |
| --- | Main footpaths |

Based on Wilson & Womersley, 1966.

Fig. II.2

towards the centre of the district. The third in the hierarchy of roads will be the local roads giving access to garages and parking facilities, in such a way that vehicles will move away from the main pedestrian routes.

Residential districts are to be built around the communications spine and in the centre near the public transport stop will be located various community facilities such as the local shops, the secondary school and churches (Fig.11.2). These should provide a point of social contact in the immediate environment and this location will permit easy access to other facilities in the town. A radial pattern of footpaths will lead to this centre while the local roads stop just short of it. Links with other residential districts will be via the communications spine. The present centre of Irvine will become a district centre and although an extension of Irvine will form a "bead", an attempt will be made to preserve its small town character. Likewise it is planned to expand the existing settlement at Kilwinning to the size of a district, and to integrate the old with the new. An attempt will be made to locate the districts so that they are contained in natural areas surrounded by physical and visual boundaries such as the river valleys that radiate across the area crossing the line of the town at approximately equidistant intervals. In this way it will be simpler to give each district visual self-containment and local characteristics.

Within each residential district there will be clusters of buildings, divisions between them being based on the topography of the area as well as the structure and use of the buildings. The average gross residential density will be 40 persons per acre, but with an average density of only 25 persons per acre in private housing areas. Each residential cluster will have a small number of community facilities which will provide local foci, such as corner shops, and tenants' meeting rooms which are likely to be used by the less mobile groups. Recognition has been given to differences in the ways of life of different socio-economic groups so provision is to be made for a range of family sizes within each socio-economic group. As a focal point of the town in spite of the town's linear shape.

result, if any group identity develops through social homogeneity it will be likely to coincide with the area of the housing cluster. The planners aim to provide for a heterogeneous population in the town as a whole, in line with New Town policy, so are setting aside areas for better standard housing for rent or for sale, houses built by housing associations, individual plots for owner-occupation, and areas for speculative building. Before designation Irvine had a Scottish Special Housing Association development, and it had already become a reception area for Glasgow overspill in 1959.

Within these residential districts it is believed that community mixing will arise through the coming together of people for a variety of purposes and appears to disregard the formation of neighbourhood units because, as the consultants explain in their planning proposals, the shops, schools, churches and interest groups will have different catchment areas. For example, the primary school will serve a local housing group, the Church of Scotland might serve one section of the town, and clubs of minority interests will be more likely to exist on a town scale. Social contacts over an area will probably be limited to small groups of houses.

The town square in the middle of the town centre is planned to become the heart of the town and the focus of all economic and social activities. The town centre is to have accommodation for shops, offices, and public, cultural and recreational buildings as well as houses for 6,000 people. It will be built south-east of Girdle Toll and have 18,000 people within walking distance of it. Working on the assumption that this might ultimately serve as many as 90,000 people, space is being allowed for additional central facilities so that eventually the town centre might accommodate a technical college, police station, retail facilities, central and local government offices, health clinic, hotels, sports' centre, petrol stations, telephone exchange, commercial entertainment, churches, schools and provision for parking. With such provision and a fast communications pattern the town centre could become the focal point of the town in spite of the town's linear shape.

One of the striking features of the present population in Irvine is the amount of commuting out of the area, and as a result of this, the Draft Designation Order made the following statement:

"It is intended that the Development Corporation's housing programme should be devoted mainly to the support of incoming industry. If the maximum rate of employment growth is to be achieved, it is important not to restrict in any way the areas from which labour can be drawn ... It is recognized, however, that Glasgow workers have a valuable contribution to make to the expansion of Irvine and it is envisaged that as in the other New Towns, the Development Corporation would conclude overspill agreements with Glasgow Corporation in due course" (Scottish Development Department, 1966, p.4).

The significance of this is that for the first time in the history of New Towns in Scotland there has been no stipulation that immigrants will be restricted according to their earlier residence or type of work. In East Kilbride, Cumbernauld and Livingston, people from Glasgow were to form the major part of the population, and to begin with, miners from Lanarkshire and elsewhere were to form a significant proportion of the population in Glenrothes. In the light of previous experience and of difficulties of attracting people from specific areas, the Draft only makes the implication that provision for Glasgow overspill is one of the purposes of the New Town.

Industrial areas will be related to the communications spine to ensure easy access between residential areas and industrial estates and a number of small sites with flatted factories will be distributed throughout residential areas, in locations adjoining the spine. The relationship of residential and industrial areas differs from most of the other New Towns where industrial estates tend to be more peripheral. It is impossible, without taking into consideration various features of the population structure, the plan of residential districts and the nature of the industries, to foresee the effects that the location of industry in Irvine is likely to have on the interaction of residents and cohesiveness of residential districts.

Irvine's development will be linear with a main communications spine stretching through the middle of an indefinite number of districts. Each district will have its own shopping centre, secondary school, corner shops and primary schools. The actual size of the population within the district will depend on topographical features, the distance to the boundaries, and communications features, with population densities varying between 25 and 75 persons per acre. Fast communication to the major facilities in the town is expected to make the town centre a major focal point.

The districts have not been given the name "neighbourhood unit" because it is expected that the facilities are unlikely to cause the cohesion that will make it a neighbourhood, in these days of rapid transport, greater mobility of the majority of people and the widespread nature of people's interests. The rapid public transport foreseen along the central spine should enable ties to exist with all parts of the town.

The Planning Proposals state, "Although the design of individual houses and the grouping of houses will have an effect on the patterns of neighbourliness, a person will belong to many other social groups based on religion, recreation, work, education, etc., which to varying degrees, will be independent of geographical position. Thus the communications systems in and between the districts and within the region become significant factors in the growth of these relationships which will flourish in proportion to the ease of movement." (Wilson and Womersley, 1967.)

East Kilbride's neighbourhood units. Woodside, the first part to be built was based on an earlier settlement while South Parks has just recently been finished and is completely new. The slower growth of Glenrothes has resulted in a less extensive built-up area to date, and reliance on temporary neighbourhood facilities in the western part of the town. The slower growth of the town has also given the earlier population an opportunity to become settled and seems to have caused less resentment on the part of members of the original community such as occurred in The Maine Neighbourhood and the Maxwellton Village area of East Kilbride.

SUMMARY OF PART II

Certain characteristics of the plans of the Scottish New Towns have been described, with an emphasis on the physical attributes such as location, open spaces, communication patterns, buildings and community facilities as well as certain demographic and sociological features. The ages and stages of development of the New Towns have been discussed and show that each is at a distinct stage in its development.

Calderwood in East Kilbride was planned as a neighbourhood unit and exhibits many features common to all the neighbourhood units in East Kilbride. As a Mark 1 Town it also has features common to some of the earliest English New Towns; it has a heterogeneous population overall, its focal point is a shopping area near a junction of main neighbourhood roads, and it has a marked neighbourhood boundary. At this stage East Kilbride's town centre is well developed as a retail centre, and other attractions at the centre are being added. It is close enough to its "parent" city for contacts to be maintained, yet the town is able to preserve its identity because it is surrounded by a Green Belt. The town is nearing the completion of its development, and most of Calderwood has been on the ground for about five years.

Glenrothes has been developed in smaller units referred to as precincts, based on the population of one primary school and consequently one-third or a quarter of the size of East Kilbride's neighbourhood units. Woodside, the first part to be built was based on an earlier settlement while South Parks has just recently been finished and is completely new. The slower growth of Glenrothes has resulted in a less extensive built-up area to date, and reliance on temporary neighbourhood facilities in the western part of the town. The slower growth of the town has also given the earlier population an opportunity to become settled and seems to have caused less resentment on the part of members of the original community such as occurred in The Mains Neighbourhood and the Maxwellton Village area of East Kilbride.

Livingston is not being built in neighbourhood units but in districts. Craigshill is a completely new development, while Deans South has been added to Livingston Station where some of the original population are still living. These two districts have virtually no contact with each other. Between the two, at Livingston Station, are the offices of Livingston Development Corporation. At this stage of development the town centre does not exist so the inhabitants either make use of the limited local facilities or they must go away from the town for their needs. Neither Deans nor Craigshill had been completed at the time of the survey yet the characteristic features of New Town development were obvious, with an immature population structure, dependence on the initiative and pioneering spirit of the early immigrants, and reliance on other communities for secondary and higher education, and major shopping facilities. Where there is a small population the difficulties typical of the early stages of any New Town development either cause a marked community feeling or produce a definite feeling of dependence on other areas providing a centrifugal rather than a centripetal force.

The exclusion of the neighbourhood unit ideal from Cumbernauld with its high population density, gives a different town pattern. Yet a study of the physical features, and in particular the communications' system and topographic features, reveals a physical division into units. This has been brought about in the effort to make Cumbernauld as safe for the pedestrians as possible, by segregating pedestrian and vehicular traffic. Although the footpath links with other units are frequent the roads still provide the impact of a visual barrier. The lack of a definite focal point within this unit, and the scattered occurrence of facilities for shopping, for recreation and for work could result in limited interaction of the residents and lack of cohesion.

The plan of Irvine gives the appearance of a number of neighbourhood units along the main line of communications. These are not planned as neighbourhoods although they have similar features such as a distinctive boundary, primary

schools, a secondary school, a district shopping centre and local community facilities. It is not possible to determine at this stage whether such districts will develop a degree of self-containment and cohesion, especially where they are at some distance from the town centre. Distance from the town centre cannot be determined only by measuring the linear distance or by taking account of the time spent in travelling. The amount of money required to travel either by private or public transport is frequently a determining factor.

The extent to which any area might take on the characteristics of a neighbourhood is clearly dependent on a variety of factors including the stage of development in relation to the age and development of the whole town, and the attraction of other facilities elsewhere in the town or in nearby urban areas. Further enquiry into the nature and location of the population's activities both within and outwith the residential unit will give evidence of the extent to which the characteristics of a neighbourhood have been adopted.

The neighbourhood unit, however, and districts have been chosen for their variety of size, location, stage of construction and age within the New Town context. They also fell in line with the objectives of the development corporations which permitted a comparison to the New Town as a whole, and from which information was obtained. The main reasons for the choice of individual units were as follows:

(a) Calderwood is that village which is fairly typical characteristics of planned development and is considered as representative of the New Town. Building is in progress since about 1960 and is of a high standard. Many of the projects, services and facilities have also been completed. Not only was it built as a separate unit from the outset but apart from the fact

PART III

INVESTIGATION OF NEIGHBOURHOOD PATTERNS

Introduction

In order to investigate further whether or not neighbourhoods have developed in neighbourhood units or districts or other residential units, interviews based on questionnaires were carried out in five different areas in three of the New Towns. The data from statistical sources, maps and plans have helped to identify demographic and physical features, but these in themselves were insufficient to come to any conclusions about community feeling and neighbourliness nor about neighbourhood identity of social groups. Nor could such information indicate how much the location of facilities within or outwith the neighbourhood unit influence local cohesiveness. The facts already reviewed proved basic to an understanding of the characteristics of the New Towns and indicated aspects that required investigation.

The neighbourhood unit, precincts and districts were chosen for their variety of size, location, stage of construction and age within the New Town context. They also fell in line with the suggestions of the Development Corporations whose permission to interview in the New Towns was sought, and from whom information was obtained. The major reasons for the choice of individual units were as follows:

(a) Calderwood in East Kilbride proved to have fairly typical characteristics of neighbourhood development and was considered as representative of East Kilbride. Building had been in progress since about 1955 so most of it was complete. Many of the projected amenities and facilities had also been completed. Not only was it built as a neighbourhood unit from the outset but apart from the few

buildings in the Maxwellton Village area, it had been built by the Development Corporation. Also the Corporation appeared anxious that of the neighbourhood units in the town, it should be Calderwood that was selected.

(b) Woodside in Glenrothes was selected as the oldest of the residential units. As it had been built around a significant part of the old village with some of the original population still in their old houses, it was expected that this area might exhibit more mature characteristics.

(c) South Parks, also in Glenrothes, was to provide a contrast to Woodside regarding age, distance from the town centre and types of neighbourhood facilities.

(d) Craigshill in Livingston was an example of an area still in its developmental stages with a very new population, limited facilities, and construction still in progress, both in the district and in other parts of the designated area.

(e) Deans District, also in Livingston, was being built around an old village, but unlike Woodside, most of the original population had been or soon would be moved from their cottages to more modern accommodation and as a result these people were being affected even more by the building of the New Town than those in the other towns.

If there had been the opportunity Kildrum in Cumbernauld would also have been surveyed. It was unfortunate from the point of view of this study that another survey had just been completed by a team from Strathclyde University, and as a result the Corporation indicated that all relevant aspects of value to them had been covered. Other than for the statistics published in their report, "Cumbernauld 67", in September 1968, all of their material was regarded as confidential and therefore could not be made available for analysis from a geographical point of view.

Interviewing could not be carried out in Irvine as insufficient progress had been made at the time of these surveys.

The interviews were planned to cover ten per cent of the households in the selected areas. As a number of the

houses were unoccupied, in some areas, the sample proved to be a little greater than 10% as the nearest house to that which was vacant, was substituted. Under the circumstances a 10% sample was of a size that could be covered by one person in the time available and at the same time could give a satisfactory coverage.

Response Rate When there was a refusal to answer questions or to answer the door, the nearest door to the house with the non-response was tried. Houses where there was no answer were tried ten times each at varying times between 9.30 a.m. and 9.30 p.m. on different days of the week. Eventually letters were written, enclosing questionnaires and of these two out of five were returned.

Table III.1 Interview responses

	(East Kilbride) <u>Calderwood</u>	(Glenrothes) Wood- <u>side</u>	(Livingston) South <u>Parks</u>	Craigs- <u>hill</u>	<u>Deans</u>
Refusal or never at home	35	10	3	5	4
House vacant or used for other than residence	5	7	5	29	10
Total Interviews	376	111	91	146	74
Percentage of refusals	9.3%	9.0%	3.3%	3.4%	5.4%

Overall the response rate was 92.9% which is somewhat better than that recorded by Conway for the Government Social Survey at 90% (Conway, 1967, p.137). The chief reasons for refusals can be grouped.

(a) Some of the New Towns' residents have had a surfeit of interviews and questionnaires from research workers and marketing organisations. For example, East Kilbride had had a large number of market research workers in the area during the previous few months and some people felt disinclined to spend a long time answering another list of questions. In the summer, 1968 a rapid survey was carried out by members of Strathclyde University on behalf of the West Lothian Courier, the local newspaper in Livingston,

at the same time as this survey was in progress. People who had answered questions objected to interruption a second time in the evening or even during the same week. After the results of the newspaper survey had been published there was a tendency to refuse another interviewer because some of the results had not been altogether favourable to the town and headlines in the paper had been "Livingston Survey - Shocks" (West Lothian Courier July 26, 1968).

(b) Nearly all the New Towns are visited by travelling salesmen. Some householders do not readily believe that everyone who knocks at the door is not doing the same thing, in spite of identification.

(c) A few people considered that any questionnaire will pry into their private affairs, having previously experienced questions that embarrassed them, about income and other personal details.

(d) The time of the year had an effect on the response rate. For example, in Glenrothes, interviews took place between October and December, 1967, and Calderwood's interviews were between January and May, 1968. These areas were therefore covered in winter when daylight hours were short, the weather was cold and often there was rain, snow or sleet. Householders who did not want to invite the interviewer inside were unlikely to stand at the door under such conditions. The interviewing in Livingston between June and September, 1968 benefited from the warmer and finer weather, because of its psychological effect on the interviewer and the respondents. It is considered that this accounts largely for the lower overall refusal rate in Livingston.

(e) It was not unusual to find that new residents were anxious to talk, and pleased for a little company, whereas people who had lived in an area for a number of years seemed less ready to discuss their activities and their environs. It appeared therefore, that a factor influencing the response rate, was one of loneliness.

Sample Frames The sample was intended to be a random sample that would give an areal coverage as well as a representative population coverage. The sampling frame used for Glenrothes

was based on maps, a method described by Jackson (Jackson, 1963, p.65). Streets were listed and houses were counted along one side of a street at a time, by using the Ordnance Survey maps 1:25,000 for Woodside. An up-to-date Ordnance Survey map was not available for South Parks so a map supplied by the Glenrothes Development Corporation at a scale of 1:1250 was utilised.

Unfortunately the maps for Calderwood proved to be too out-of-date, so a different method had to be employed. The Electoral Register was considered as being the most accurate source available, but limited the sample to houses that were built before October 1966. As it had been planned to survey an area that was fairly well established this was an advantage because it eliminated the parts of Calderwood that had been built within the previous fifteen months. Parts excluded were the high rise developments in Falconbridge Road and the eastern extremities of the neighbourhood unit. As the Electoral Register accounts for every dwelling whether the inhabitants are eligible to vote or not, it was possible to take every tenth house and thus derive the sample in that way.

As Livingston was in the early stages of development no maps with houses numbered, existed for Craigshill or Deans District. Nor was the use of the Electoral Register possible as many of the houses had been built within the previous few months. It proved necessary to make a list of street names and walk along each street, counting the dwellings, and selecting every tenth house. This was not entirely satisfactory in the Deans District because many of the cottages in the old part of Livingston Station had been or were soon to be vacated prior to demolition and it was not always possible to discern which houses were still occupied. In this particular part the houses still standing were counted so that the sample represents 10% of the houses and not 10% of the households. Twelve interviews were held in this section although it is estimated that not more than fifty dwellings were actually inhabited. In Craigshill the sample is also considerably higher than 10% of the households because a number of houses had been vacated after

storm damage the previous January, and they had not been re-occupied or re-let. The families who had been evacuated were housed in other parts of the town.

The sampling frames used, therefore covered all dwelling units whether or not they were inhabited; they avoided duplication and were up-to-date. The first house to be selected in each area was selected randomly from a number between one and ten. This form of sampling is not considered by Moser as a strictly random sample as a certain systematic arrangement occurs, because once the sampling fraction has been determined and the starting point has been selected all subsequent samples have been determined. This means that the selection of one of the sample is dependent on the previous one, while with simple random sampling all the selections are independent of each other.

The Interview Interviews were considered to be of much more value than postal questionnaires, partly because a higher response rate was ensured, but chiefly because this was likely to give a much sounder insight and understanding of sociological characteristics of the area. It was hoped that the accuracy of the results would also be higher, as it gave the interviewer an opportunity to realise where the local word usage varied, and, because clarification was possible, it was not necessary to accept vague replies. Personal interviews took much longer than a postal questionnaire, they were more expensive and the extent of the coverage was limited. Furthermore interviewing was subject to interview bias, but rapport could be established and this was important where questions appeared to pry into personal details. Jackson stated concisely that postal interviews involve the collection of "facts rather than ideas, data rather than experience, and realities rather than thought" (Jackson, 1963, p.72).

Although interviews were formal to the extent that the same questions were asked of each respondent in the same order and using the same words, there was usually considerable informality as well. Informants were encouraged to talk

about the town and their activities as much as possible. The unit of enquiry was the household, although the majority of answers were given by one member. The interviews varied in length from about ten minutes to two and a half hours, and in order to gain further insight into the character of a New Town the interviewer found temporary accommodation with a family in East Kilbride.

A short pilot study was carried out in order to identify any ambiguities and flaws in the questionnaire and to prepare a coding system for use during the period of interviewing. As the printed form had to be in a style that could be filled in by an informant if necessary, the working at the interviews was slightly different from that on the form. Also in Glenrothes the word "neighbourhood" was replaced by "precinct" and in Livingston the word "district" was used, but when these terms were misinterpreted a more precise description was added. (See Appendix 2 for Questionnaire.) Answers were written down during the interviews for the sake of accuracy.

The Questionnaire The length of the questionnaire was kept to a minimum so that respondents would not become impatient and leave the answering incomplete. Individual questions were also kept short, to the point and used the simplest words so that respondents interpreted them in the same way. An attempt was made to avoid leading questions; and by leaving questions open-ended it was often possible to tell whether the question had been understood or not. It was decided to confine questions to aspects relating to residence, shopping habits and the use of services, place of work or school, memberships of clubs and organisations, entertainment, areas where children play, and the visiting of neighbours, friends and relations.

The order of the questions was dictated by the need to establish good rapport at the beginning of the interview. The first questions about residence followed easily from the introductory remarks about the purpose of the interview, and most people had no objection to stating where their shopping was done. Personal information about age and employment was purposely placed near the middle so that

those who objected to these questions were not disinclined to answer other parts of the survey. Direct questions about income and social class were avoided so objections to these were eliminated.

As most of the questions were open-ended coding took place after the interview. Pre-coding of some answers was possible, but post-coding was necessary for the questions referring to play areas and the advantages and disadvantages of the neighbourhood. The coded information was written onto transfer sheets and then punched on Hollerith cards for easier handling. A Counter-sorter was used to help sort cards and total columns.

Co-ordinate values were given for the location of each house where interviews had been held, so the features could be mapped by a computer. Where two flats, one above the other, were in the sample they were mapped as if adjacent to each other. In this way the areal distribution of single features could be seen at a glance on the five maps. (See Appendix 3 for explanation of the programme, and Volume II for examples of the maps.)

The reliability and validity of the questionnaire will be discussed in relation to the individual questions, where appropriate. It is realized that the reliability of any estimates or statistics must have various errors taken into account, such as those due to the random sampling process, incomplete coverage, interview bias, clerical mistakes and faulty information, but it is also necessary to work on the assumption that because care has been taken, the analysis of the results of the survey is adequate.

No method is at present available by which one can determine the length of time spent in the town by families that have emigrated, although most of the local government corporations are now keeping records. Statistics of the water revenue for leaving the New Towns, as given by the valuers, are of doubtful reliability and tend to overestimate the real revenue.

CHAPTER XII

SETTLEMENT AND POPULATION IN RESIDENTIAL UNITS

SETTLEMENT

Length of Residence in New Towns and Residential Units

The ages of the New Towns and their various parts have already been discussed, but of equal importance is the length of time the people have lived there. A differentiation has been made between the length of time the householder has lived in the town, and the length of time he has lived in his present home. With a very mobile population the average length of residence in one place will be considerably shorter than with a more stable population. In all units except Deans, during various conversations with local residents reference was made to the instability of the population and how difficult it was to settle because of the constantly changing community.

Table 12.1 Length of residence of householders in the New Towns

	<u>Wood-side</u>		<u>South Parks</u>		<u>Calder-wood</u>		<u>Craigs-hill</u>		<u>Deans</u>	
	No.	%	No.	%	No.	%	No.	%	No.	%
Over 1 year	5	4.5	6	6.6	34	9.0	61	41.8	7	9.5
1-2 years	9	8.1	17	18.7	69	18.4	78	53.4	14	18.9
3-5 years	20	18.0	28	30.8	76	20.2	2	1.4	5	6.8
6-10 years	19	17.1	29	31.9	130	34.6	-		4	5.4
11-20 years	48	43.2	9	9.9	55	14.6	-		4	5.4
Over 20 years	10	9.0	2	2.2	12	3.2	5	3.4	40	54.1

No method is at present available by which one can determine the length of time spent in the town by families that have emigrated, although most of the Development Corporations are now keeping records. Statistics of the major reasons for leaving the New Towns, as given by the emigrants, are of doubtful reliability and tend to camouflage the real reasons.

Woodside The area in Woodside that stands out as having residents with the longest time spent in the town is around Woodside Way where part of the old village remains. Also, a large number of Fife County Council houses have householders who have lived in Glenrothes for between ten and twenty years; but many of those that were built both before and after the Second World War have been occupied more recently by their present tenants, giving the impression that earlier tenants have drifted from the area, and perhaps justifying the comments about the changing population. There is not much difference in this respect between the Fife County Council houses and those built shortly afterwards by the Glenrothes Development Corporation where about half of the householders have lived in the town for more than ten years. In most other parts of the precinct the occupants have normally been in Glenrothes for five years and less. Woodside, the only unit to be completely built before the survey took place, shows a much more settled population than the other residential units to be described below.

South Parks The length of residence of householders in South Parks shows that those who have lived longest in the town have houses south of the primary school, most people having been there for more than five years, and a number for more than ten years. In the north and in the south-eastern corner of the precinct residents have mainly lived in the town for four years or less.

Calderwood In Calderwood 9% of the householders interviewed have lived in the town for less than one year, and as the interviews were only in areas that had been established for more than a year this is indicative of instability. However, the households in which people have lived for less than a year are fairly scattered, with a slight clustering in the most recent developments. The length of time spent by most residents in Calderwood correlates with the age of the specific developments, so the area north-west of Maxwellton Avenue, that is, the Calderwood 1 development completed in 1955, has a predominance of people

who have been in the town for over ten years. As a contrast, in the north-eastern part of the neighbourhood unit, that is, the Calderwood 18 and 19 developments finished in 1966-7, a majority of citizens have been in the town for only one or two years.

Craigshill Craigshill has only been built within the last two years hence the 5% of the householders who have lived in Livingston longer, have dwelt in other parts of the designated area. These people are scattered throughout Craigshill East and Almond West. Craigshill still shows clearly the order of the initial occupation, so in Almond South three out of the four of the tenants interviewed have lived in the town for less than twelve months. Nearly all those in Almond West have lived in Livingston for one or two years. The majority of the householders in both Craigshill West and Craigshill East have been in the town for less than two years. The reason for differences of several months' residence between the cells is primarily related to dates of the completion of building developments.

Deans The figure showing that more than half the householders have lived in Livingston Station for more than twenty years is not accurate for the reasons already explained in the Introduction to Part III, but the number approximates 50%. South Deans was the first of the new Livingston developments to be built, and helps to account for approximately 35% of the Deans' population having settled within the last five years. Although the Glen Avenue area to the north of the district is newly occupied, the majority of the occupants are people who have been moved from old houses in Livingston Station and nearly all of the householders there have lived in the town for more than twenty years. Hence in only 18% of the houses where interviews took place in the north of Deans, are there householders who have lived in the town for fewer than ten years. As a contrast, more than two-thirds of the tenants in Deans South have lived in Livingston for three years or less, but all of the other third have lived there for more than 15 years.

As far as length of residence in the town is concerned it is clear that differences exist within residential units. The old cores usually stand out because the original residents and their families have stayed on. In Deans South a big proportion of the core of earlier inhabitants have moved to a single area adjacent to the old village. On the whole though, patterns brought out by length of residence in the town correspond with the ages of various building developments within the units.

Table 12.2 Change of residence within individual New Towns

A = Total households that have moved within the unit. *A+D.*

B = Total households that have moved within the town. *Only*

C = Percentage of households that have moved within the town.

<u>Present Unit</u>	<u>A</u>	<u>Unit of earlier residence</u>		<u>B</u>	<u>C</u>
Woodside	23	Auchmuty	8		
		South Parks	2		
			<u>10</u>	33	29.7%
South Parks	4	Auchmuty	16		
		Woodside	5		
		Macedonia	1		
		Rimbleton	4		
		Town Centre	1		
			<u>27</u>	31	34.1%
Calderwood	51	East Mains			
		(including old village)	24		
		West Mains	3		
		Westwood	9		
		The Murray	17		
		St. Leonards	1		
			<u>54</u>	105	27.9%
Craigshill	20	Livingston			
		Station	5		
		Livingston			
		Village	1		
		Elsewhere	1		
			<u>7</u>	27	18.5%
Deans	47	Nil		47	63.5%

Length of Time in Residential Units

From Table 12.2 it can be seen that almost 30% of the householders in Woodside have moved to houses within the precinct from other parts of the designated area as well as from other parts of Woodside itself. Altogether 21% have lived elsewhere in Woodside, while almost 9% have moved from Auchmuty and South Parks. The two households from South Parks have not gone to County Council or Development Corporation houses. Of those who have moved from Auchmuty or other parts of Woodside nearly all have moved into houses built by the Development Corporation. Presumably the people from Auchmuty moved to Woodside because they preferred it to their former area. In the answer to Question 5 and 6 (see Appendix 2) none of these people stated that they would like to be back in Auchmuty. Several of those who have moved within the precinct are people who vacated older buildings in the village when the New Town houses became available. Apart from these, it seems that Woodside is more attractive to people already in the area, rather than to people in other precincts.

As South Parks has only been settled during the last eight years, and both Woodside and Auchmuty were settled earlier, it is understandable that a different pattern has emerged. The precinct provides a contrast with Woodside because less than 5% of the population have moved within the unit, whereas 30% have gone there from other precincts and particularly from Auchmuty. This means that approximately one-third of the dwellings are occupied by people who have lived elsewhere in the town. These households are found scattered throughout South Parks. The precinct, therefore, appears to be regarded favourably as an area in which to live, by people in various parts of Glenrothes. Nevertheless, a comparison of the length of residence, and age of building development indicates an unstable population. Areas of houses completed for occupation about the same time show the present tenants have lived there for varying periods. No part of the precinct appears to be inhabited by a group of people arriving in South Parks at the same time. Almost one-third of the people have lived in the

precinct for less than two years. Some of the respondents claimed that this unsettled character of the population gave them a feeling of restlessness and tended to spread some discontent.

A large proportion (14%) of the people in Calderwood have lived in the neighbourhood unit for less than one year in spite of the sample not including new houses. Altogether 37% have lived in the same house for less than three years, compared with 17% in Woodside and 27% in South Parks. This instability seems to bear no relation to the size or age of the residential unit. The eastern and north-eastern parts of the neighbourhood unit have been occupied since 1965, so no-one there could have been in the same dwelling for any length of time. However, in the central part of the unit, nearer the shopping centre, a large number of changes in tenure have occurred, so many of the houses have been occupied by the present tenants for less than four years, although most of them were constructed before 1962. In the area north-west of Maxwellton Avenue which was one of the first housing developments, a large proportion of the houses have been inhabited by the present occupants for over ten years. This represents an area of relatively stable population, although one also finds there, a cluster of people who have lived in other parts of Calderwood. Of the people who moved to the neighbourhood unit, 14% have moved from another part of East Kilbride. A similar proportion have moved within the neighbourhood unit. These statistics may therefore be interpreted as Calderwood proving attractive both to people within the unit looking for more suitable accommodation, as well as to people living in other parts of the town.

As Craigshill is still in the process of construction no-one could have been in his present house for much longer than two years. Under normal circumstances people are not encouraged to apply for a change of tenancy during the first three years of occupancy. The main differences between numbers showing the length of time spent in the town, and the length of time in the same house, are accounted for by the effects of storm damage, leaking roofs

and faulty construction, particularly in the system built houses, in 1968. Fortunately alternative suitable accommodation was available elsewhere in Craigshill at the time. Altogether, 14% of the people interviewed, have moved within Craigshill during the last two years. The eastern side of Craigshill East has been the main reception area. The majority of the people in the west of the cell have been in the town for a year. Only 20% of those who were evacuated went into houses in Almond West. One household in every six, in Almond West, has been in the town for less than a year, but most have been there for one or two years. This proportion indicates that either there is no demand for the houses or that people are not settling as well as one would hope. Almond South, the area with higher amenity houses, was being tenanted very slowly indeed. No part of Craigshill has attracted large numbers from either Livingston Station or Livingston Village up until now. Nearly all those who have moved to Craigshill from Livingston Station are in Craigshill East. Almond West has the only representatives in the sample from other parts of the Livingston designated area beyond Deans and Craigshill.

Two-thirds of the population in Deans have been in their present homes for two years or less, and nearly all of this group live in Deans South or Glen Avenue. Four distinct sub-areas can be identified on the basis of length of residence in Deans; they are only partly related to the ages of the buildings. In Livingston Station, excluding Burnsknowe, most of the householders have lived in their present homes for between 15 and 60 years; but also, a significant number of people who have taken over old miners' cottages in Main Street and Glen Road on a temporary basis, have been there for two years or less. In Deans South most of the construction has been finished for two or three years, but either because applications for tenure are coming in very slowly, or because there is a great deal of emigration at this early stage, one house in every seven has been occupied by the present tenant for less than a year. There seems to be no significant variation in length

of tenure from one part of Deans South to another, nor movement from one part of the area to another. None of the houses in the third sub-area, East Glen Avenue and West Glen Avenue, have been occupied for as much as a year, but most of the inhabitants have lived in the town for twenty years or more and have been rehoused by the Development Corporation. The fourth sub-area is Burnsknowe where five out of the six people interviewed have lived in their present houses since they were built eight years ago. Hence, in the Deans District, 64% of those interviewed have been transferred by the Development Corporation, or have moved themselves at some stage from another part of the same district. Most of the changes of residence have been just prior to the demolition of miners' rows in Livingston Station. Previously the population of the old village was particularly stable.

In all these towns early residential units were around or near existing settlements. For example, Woodside, Deans, and East Mains in the case of East Kilbride, and residents were rehoused where necessary, thus giving high proportions of residents moving within the unit. Calderwood was only directly concerned with rehousing a few of the people who had lived in Maxwellton Village, but the neighbourhood unit is now old enough for house exchanges to have occurred. Neither Craigshill nor South Parks has been involved in the resettlement of local people or large numbers of house exchanges.

A study of the location of the residences of people who have lived elsewhere in the same towns, makes Livingston quite different from the other towns. In Deans, some of the earlier population has been moved as a groups so that along with the remaining houses of the old Livingston Station most of them are now living on the north side of the area that is being demolished. The others are scattered through Deans South. In Craigshill, due to force of circumstances as well as policy, when a group of people were moved, most of them were given new accommodation near each other. In neither Glenrothes nor East Kilbride has there been this type of movement and as a result no definite pattern

has appeared. In Woodside the area of Fife County Council houses has very few people who have moved from other parts of Glenrothes, presumably because they are under the control of a different authority.

The two major facts brought out by the interviews are that the age of the residential unit or part of the unit often, but not always, has some correlation with the length of residence; and the instability of the population is particularly marked during the first few years.

Location of the Houses of Immigrants

It was considered desirable to determine whether there existed any significant spatial pattern relating to the origins of immigrants to the New Towns. The proportions of people from various localities to each New Town have already been discussed in Part II. The results for the individual residential units from the survey are found in Table 12.3.

Table 12.3 Immediate origin of immigrants

	<u>Wood- side</u>		<u>South Parks</u>		<u>Calder- wood</u>		<u>Craigs- hill</u>		<u>Deans</u>	
	No.	%	No.	%	No.	%	No.	%	No.	%
Glasgow	8	7.2	6	6.6	216	57.4	16	11.0	5	6.8
North-west Lanarkshire	2	1.8	3	3.3	97	25.8	8	5.5	4	5.4
Local area	Fife		Fife				LRSA		LRSA	
	63	56.8	36	39.6			39	26.7	26	35.1
							Edinburgh		Edinburgh	
							31	21.2	5	6.7
Elsewhere in Scotland	24	21.6	24	26.4	37	9.8	31	21.2	4	5.4
Elsewhere in Great Britain	8	7.2	19	20.9	25	6.6	15	10.3	3	4.1
Overseas	-	-	1	1.1	-	-	3	2.1	-	-
Local residents	6	5.4	2	2.2	1	0.3	3	2.1	27	36.5
	111		91		376		146		74	

In Glenrothes the main differences between the two precincts lie in the proportions who have migrated from parts of Fife, from other countries in Great Britain and the numbers who have always lived in the town. As Woodside includes part of the original village and was also the first part of the New Town to be established, it is not surprising that a high proportion of the people there have always lived in the designated area. (The same holds for Livingston Station.) The large number from other parts of Fife, in Woodside, can be accounted for partly by the migration of coal miners from small coal mining communities and towns like Lochgelly, or even nearer, like Coaltown of Balgonie, although these people are no longer employed in mining; and partly by the attraction of the New Town to residents in some of the small Fife villages. Furthermore, a number of people included in this number from Fife were employed by the paper mills and moved nearer their work as soon as the opportunity came, with the building of the first precinct. Significant numbers moved from Thornton and Kirkcaldy, some because they were in need of improved houses, but many because work was obtainable at a time when some of the linoleum factories in Kirkcaldy were being run down. The greater numbers going to South Parks from other parts of Great Britain can be related to the number of workers coming to industries that were established after 1964, many of them being English firms establishing factories in Scotland and bringing some workers with them. *immigrants. This*

The large number of people from Glasgow, in Calderwood, is not surprising in view of the reason for the town's establishment, followed later by encouragement given to overspill from Glasgow, and the proximity of the city. Likewise, the large number from North-west Lanarkshire were to be expected, and from the point of view of proximity and necessity, can be compared with the people from Fife moving to Glenrothes. The constant demand for houses in East Kilbride, by people near the top of the list of priorities for housing allocation, has meant that there has been less need to attract large numbers from other parts of Scotland or Great Britain, and such people have only been

considered when they are already employed in the town, unless they are key workers establishing a new industry.

In Craigshill immigrants from Glasgow form only 11% of the population, a low figure when the attraction of Glasgow overspill was planned to play such a large part in the New Town's development. Craigshill has instead, become the new home of a large number of people from Edinburgh, with almost one-third of its population estimated as originating there. An even larger number have been attracted from the surrounding parts of Midlothian and West Lothian, and particularly from places like Polbeth, Bathgate, Broxburn, Armadale and the Calders. Similarly Deans has a high proportion (35.1%) from this surrounding area but only 6.7% from Edinburgh. Two general conclusions from the above information may be put forward tentatively. The first residential units to be built in a New Town appear to attract larger numbers from nearby locations than units built later. This may be because the attractive qualities of the New Town have not been advertised as intensively in more distant locations, and people are more ready to move to something which they can visit and of which they can see the initial progress and plans with little trouble. In addition, when industries start moving to the town from further afield the town is "put on the map" and population is attracted from greater distances. Residential units being established at that particular time will therefore be settled by people who have come from further than the first immigrants. This has happened in South Parks and it appears as if Craigshill is following in the same way.

As Table 12.3 takes into account only the householders, the distribution pattern of the origins of migrants is slightly misleading, especially since many of the New Town houses are occupied by newly married couples each of whom may have come from a different part of Great Britain. An examination of the information obtained during the interviews indicates that in many cases either the husband or the wife has previously lived near the New Town. In Calderwood, for example, there were, husband from Ireland, with wife from Bearsden; husband from Wales, with wife from Chapelton.

The spatial distributions of the householders' previous homes show no very marked patterns. Half of those people who had spent all their lives in Glenrothes were still living in the old part of the Woodside village. The northern part of South Parks has more people from outside Fife than the rest of the precinct and this could be related to the amount of owner occupation in that section. Presumably this area would attract people in the higher salaried classes and thus might attract key workers and men in managerial positions who have migrated from outside Fife. In Calderwood there appear to be enclaves of Glaswegians, for example, around Angus Avenue and Pembroke. This is a likely feature in a neighbourhood where over half of the population comes from Glasgow. While East Kilbride has proved such an attraction to people from Glasgow and Lanarkshire only a small proportion have moved from other parts of Scotland and Great Britain. A significant number of these people from other parts are found particularly in the areas of owner-occupied dwellings or of higher amenity such as Stobo, Jamieson Drive and Ness Drive. In Craigshill the only cell with no-one from Glasgow or the Lothians' Regional Survey Area in the sample was Almond South, the area with the higher amenity housing. Otherwise the distribution is intermixed. The distribution of householders by previous place of residence in Deans, shows that all those who went there from Glasgow and North-west Lanarkshire are scattered throughout Deans South while in the north the people are either from local places or other parts of Scotland.

The main factor arising from the distributions within the residential units seems to be that higher amenity and owner-occupied areas have a bigger proportion of immigrants from areas other than Glasgow and the locality, compared with the other parts of the units. Over all, with the exception of Deans the populations according to place of origin are well mixed.

and of Woodside all respondents had gone there because of work, while the majority of the people in the Fife County Council housing part of the precinct had gone there for the house, but elsewhere in the precinct no definite pattern appears. In South Parks

Reasons for Going to the New Towns

The reasons for moving to a New Town were investigated in case they helped to explain some of the actions or behaviour of people in the residential units, and have been summarized in Table 12.4.

Table 12.4 Reasons for moving to the New Towns

	<u>Wood- side</u>	<u>South Parks</u>	<u>Calder- wood</u>	<u>Craigs- hill</u>	<u>Living- ston</u>
Work (either available or a transfer)	44	38	154	83	29
House available	52	35	143	53	6
To be near relatives or return to home area	7	16	34	4	3
Health	-	2	13	2	1
For the sake of children	1	1	19	5	-
Interest in the New Town	1	-	5	2	1
Came with parents before marriage	-	2	-	-	8
To get away from previous area	-	1	1	4	1
Other reasons, or indefinite, or did not know	2	1	46	10	1
Not applicable	7	2	1	3	27

Several respondents gave two or three reasons of equal importance and the question was not applicable to people who had lived in the town all their lives. A few people appeared to try giving an answer that would impress, so the final figures can only be a guide to reasons for people migrating to the New Towns. The chief reasons were, clearly, the availability of work and/or a house, or transfer of work by a firm. The fact that a house was available with the work was important, especially to people from Glasgow.

In the Alburne Park end of Woodside all respondents had gone there because of work, while the majority of the people in the Fife County Council housing part of the precinct had gone there for the house, but elsewhere in the precinct no definite pattern appears. In South Parks

a similarity shows up. The area where owner occupation is highest has many people who went to the town for reasons connected with work, and the availability of a house either for buying or for renting was a secondary consideration. The area around Stobo (Calderwood) likewise shows the reason for the people in the sample going to live in East Kilbride was their work; but elsewhere no areal differentiation is evident. In Craigshill the same feature recurs in Almond South, the cell with the higher amenity houses. In addition, an area around Elm Grove and Chestnut Grove is where all respondents claim they went to Livingston because of their employment, and half of this number had come from other countries in the United Kingdom. This section is not planned as a higher amenity development.

From these observations it seems apparent that in the high amenity areas householders have migrated to the New Towns primarily because of their work. Elsewhere several reasons were given, but they were dominated by the availability of a house and /or work. In Livingston the availability of work seems to have played a much more important part in making a decision to move than the availability of a house. Nearly all those who moved for health reasons or for the sake of the children, came from different parts of Glasgow, and are settled in various parts of the residential units.

Satisfaction with the Residential Unit

The final questions in the section on residence were related to whether the inhabitants liked living in the particular neighbourhood unit, precinct or district. In order to avoid any misunderstanding the name of the particular unit was inserted in the question in place of "this part of the town". In spite of this many residents expressed opinions about the town as a whole, or about the immediate environs of the house. Many people stated that they enjoyed living in one part of the particular residential unit but considered that other parts were less desirable. It was realised that this form of question, "Do you like living in?" is likely to produce affirmative answers,

so the proportions answering, "Yes", "No", and "I don't know", will not be given too much attention. The answers about the advantages and disadvantages of the area give more indication of the people's feelings and opinions. Summaries of these are given in Appendix 4 but several of the points will be discussed where relevant in the following sections of this work.

Table 12.5 Satisfaction with residential unit

(Question: "Do you like living in ...?")*

	<u>Wood-</u> <u>side</u>		<u>South</u> <u>Parks</u>		<u>Calder-</u> <u>wood</u>		<u>Craigs-</u> <u>hill</u>		<u>Deans</u>	
	No.	%	No.	%	No.	%	No.	%	No.	%
Yes	89	80.1	70	76.9	304	80.9	87	59.6	57.5	77.7
No	15	13.5	13	14.3	35	9.3	38	26.0	9.5	12.8
Indefinite	7	6.3	8	8.8	37	9.8	21	14.4	7	9.5
Totals	111		91		376		146		79.0	

In each town there may have been pockets of discontent but these were not large enough to show clearly in the 10% sample, and on the whole those who were dissatisfied or non-committal in their responses were scattered throughout all areas. Many people qualified their "Yes", with "Now" implying that they did not enjoy the first few weeks or months in their home. This qualification was particularly marked in Calderwood. Questions were also asked to find out the reasons for people wanting to live in other parts of the towns. Some of the reasons given were not very logical. For example, one person wanted to get away from her present place because the area was all so new, but the place to which she proposed going was just in the process of being built! Further discussion identified the real reason as being a matter of social consciousness. Where an interviewee completely contradicted himself no account was taken of his reasons for wishing to live elsewhere.

* Where different opinions were expressed by husband and wife a half point was given for each opinion.

Table 12.6 Preference for another residential area

(Question: "Would you like to live in another part of the town?")

	<u>Wood-</u> <u>side</u>		<u>South</u> <u>Parks</u>		<u>Calder-</u> <u>wood</u>		<u>Craigs-</u> <u>hill</u>		<u>Deans</u>	
	No.	%	No.	%	No.	%	No.	%	No.	%
Yes	6	5.4	8	8.8	40	10.6	20	13.7	9	12.2
No	99	89.2	82	90.1	322	85.6	125	85.6	65	87.8
Indefinite	6	5.4	1	1.1	14	3.7	1	0.7	0	0.0
Totals	111		91		376		146		74	

In Livingston the Craigshill interviews showed that 14% would rather live elsewhere in Livingston. Of these, one-third stated a definite preference for another part of Craigshill. A few wanted to go to Craigshill East because they were impressed by the better structure of the conventionally built houses as opposed to the system built houses in Craigshill West and Almond West. One person wanted to move from Craigshill East to Almond West and two households stated a preference for a house in Almond South where there would be no public stairway, and they would have their own garden. (Houses with these amenities were in fact available in their own area.) One family said they preferred to live in Deans South because the lay-out was more attractive; two families would have preferred Livingston Station because it was nearer their work and shops and was not so quiet as Craigshill; and two householders considered that Livingston Village would be better because the population did not seem so "mixed" and the bus services were more frequent. Five different respondents felt that Howden, the new adjacent district had better houses than those they were living in and would like to go there. Dechmont was also mentioned as a desirable area by two families, both of whom wanted to be "in the country" and knew that part of it was planned to have private developments. Some people said they would like to move to another part of the town without specifying an area. Two wished to be in areas with different house types, one, a house with its own entrance at ground level, and the other, a split level house.

On the whole all the people who preferred to live elsewhere did so for the material advantages it would offer and for the convenience. Reference was constantly made to the type of house, shopping facilities and bus services. Most of them decried the disadvantages and difficulties of their present dwellings. The people who would like to have lived elsewhere lived in different parts of Craigshill, but the most marked cluster was in Brisbane Street in Craigshill West where leaking roofs and other structural troubles were a continual menace.

Most of those in the old part of Livingston Station who would like to live somewhere else, suggested Glen Avenue, possibly because it was near their present home and also because many of their friends had already moved there. One householder thought that Burnsknowe, also on the hilltop would be preferable, while Glen Road at the foot of the hill was regarded as desirable by others. The reasons given were that it was quiet and the houses were better. The older people in the miners' rows who did not wish to move gave two major reasons. Understandably several wished to remain in the house that had been their home since childhood, but others were against moving to a place that was centrally heated because it had no coal fire. One family in Main Street and one household in Deans South thought that Craigshill was friendlier and had a better environment. The other two Deans South families that preferred to live elsewhere believed that the courtyard houses were a better design because they had no stairs, but they said that they would not want to move away from Deans South. Again, most of the reasons given for preferring to live in another part of the town were not so much the advantages of other parts, but disadvantages of the present housing conditions.

Forty of all those interviewed in Calderwood (11%) expressed preference for other parts of East Kilbride either within Calderwood or another neighbourhood unit. Those who wished to remain within Calderwood were a retired couple of over 80 years in Maxwellton Avenue who wanted to be nearer their son in Almond Avenue, a family in Stobo

who preferred the area nearer the Hamilton Road where they would have an outlook over open fields and feel less closed in, and a household that preferred the "atmosphere" in the Deveron Road vicinity. Nine people said that they preferred to be nearer the shops or the town centre, and while four of these people liked living in Calderwood the others had no definite opinions about the actual location of residence. Nearly all those who expressed a desire to live nearer shops were tenants in the north-east part of the neighbourhood unit, and particularly in the Stafford-Wylie area. Others who did not name a preferred area gave a variety of reasons for wishing to move. They wished to be nearer the country, to have houses with central heating, to live in better houses, to be near a Roman Catholic school and so on. In Calderwood three of those interviewed preferred to live in St. Leonards because the houses there were newer, more modern or better; four people named The Murray as preferable so they could be near relations, because it was less isolated, or the atmosphere was friendlier or the house construction better; seventeen considered that East Mains had more advantages because it was nearer the town centre, the old village was attractive, the houses were detached, and of a higher standard, there were bigger gardens and more space, bus services were more frequent, and they could be nearer relatives; one person liked Westwood or Whitemoss (East Mains) which has better types of houses.

It is significant that although many people said they wished to move to another part for the better houses, there was often structurally little difference in the areas named from those they were already occupying. In some of these cases it became evident later in the conversation that they felt there was something socially better about the other areas. Although those who stated a preference for another area were scattered throughout the town a greater proportion were in the north-eastern third of the neighbourhood unit. Of the fifteen people in the north-east who preferred another area, eleven stated that the shops and the town centre were too far away for their satisfaction.

some of the features described in the different units.

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Of the eight people in South Parks who said they would rather live in another part of Glenrothes, four said they would like to live at or nearer the shopping centre and one person thought that Dovecot Park (Auchmuty) would be more central. One person who named Macedonia said, "There is a better class there", one interviewee considered that Caskieberran was more open and a third thought that Willow Crescent in South Parks itself was preferable because of the more open lay-out. No-one on the north side of the precinct stated a preference for a different area.

The answers to the question in Woodside partly reflect the age of parts of the precinct because they showed a desire for an area with more modern houses or newer parts of the town. A typical remark from a householder who preferred to live in South Parks was, "You find nicer houses there". Another person said he would like to move away from a rented area; and one lady thought that other parts of Woodside were more acceptable because they had a better view, making special reference to Woodburn Road. Although one young family living in Woodside Road considered that the precinct was pleasant they wished they were in an area where there were more young children so their child would have company. They felt that with young people about, the area would have more feeling of community.

It appears that within the residential units described, people who preferred to live in other areas did so chiefly because they wished to be nearer the town centre or the shops, they wanted to have a view of the open countryside, or they would have liked a better house or to live in a better area. Other reasons for different living preferences came out in the answers to the questions about the advantages and disadvantages of the area where they were living.

When people discussed their residential units many of them gave inaccurate statements about what existed and what was lacking, but all comments were noted. Many of their comments were coloured by recent local events and received much more attention than might otherwise have been the case. As a result it is of little value to compare figures for some of the features described in the different units.

Some of those interviewed gave opinions about many different aspects of the area where they lived while others could find nothing to say. There was a tendency for people to spend more time talking about disadvantages and difficulties rather than the advantages. No doubt many grievances were aired simply because it was felt that they would be heard by a sympathetic ear. Some residents tried to take the opportunity to do some propaganda relating to their complaints in the hope that something would be done about them. The response rate to questions about advantages and disadvantages of the residential units is given in Appendix 4 along with a summary of the replies. Other aspects will be discussed in the following chapters.

Although various factors about settlement in the residential units have been discussed and some patterns of the areal distribution of these factors have been considered, at this stage it is not possible to come to any conclusion about the real significance of these patterns either individually or collectively in relation to the neighbourhood concept.

POPULATION

The Spatial Distribution of Age Groups

In Part II the age structure of the residential units was described in relation to their respective New Towns and it was shown that an individual unit could not necessarily be considered as representative of the town as a whole. In a similar way the pattern of age groups within a unit can mask quite important variation from one part to another. Overall the youthful structure of the population is noticeable, particularly in the most recently built areas like South Parks and Craigshill. It is possible that marked clustering of people within a certain age group could affect the character of that area or even of a wider area as it is recognised that certain age groups are more gregarious than others. Many people enjoy the company of others of similar age, and many activities are of particular interest to people within a limited age range. It is perhaps unlikely

that alone, the clustering of people of a specific age group will cause marked cohesion or any other social characteristic in an area, but it may be a contributory factor as interaction between people within an age group is more likely for some activities than among people in a wide age range.

Ages of Householders The householders and their spouses form one of the largest groups in the population of a New Town - in Woodside they account for 48.3% and in Deans 57.2% of the sample population.

Table 12.7 Age groups of householders and their spouses in residential units

	<u>Wood- side</u>		<u>South Parks</u>		<u>Calder- wood</u>		<u>Craigs- hill</u>		<u>Deans</u>	
	No.	%	No.	%	No.	%	No.	%	No.	%
Under 20	1	0.5	2	1.2	1	0.1	7	2.4	2	1.5
20-29	31	14.8	37	21.4	128	17.8	168	58.3	23	17.6
30-39	61	29.0	63	36.4	275	38.2	77	26.7	34	26.0
40-49	65	31.0	28	16.2	185	25.7	22	7.6	34	26.0
50-59	29	13.8	24	13.9	74	10.3	10	3.5	16	12.2
60-69	19	9.0	15	8.7	33	4.6	3	1.0	12	9.2
Over 70	4	1.9	4	2.3	23	3.2	1	0.3	10	7.6
Percentage of sample population	48.3%		53.4%		51.5%		56.0%		57.2%	

Table 12.8 Average ages of householders and their spouses

	<u>Wood- side</u>		<u>South Parks</u>		<u>Calder- wood</u>		<u>Craigs- hill</u>		<u>Deans</u>	
	SD*		SD		SD		SD		SD	
male	43	11.8	40	12.9	40	11.7	31	11.1	43	11.8
female	41	13.1	40	14.3	39	12.4	29	11.1	43	13.1

* SD = Standard deviation.

Although the average ages of men and women in any one residential unit do not vary a great deal the ages of women usually show a greater standard deviation from the mean. For example, the standard deviation in Woodside for men is 11.8 but for women it is 13.1; in South Parks it is 12.9 and 14.3 respectively, but in Craigshill the standard deviation for both men and women is 11.1

Within Woodside a broad distinction can be made between the area to the north of Bighty Burn and the footpath linking it to Woodside Way, and the area to the south of this line. To the north is found a younger population with only 10% of the householders over the age of 50 years, compared with Woodside as a whole where almost a quarter of this group of people are over that age. The correspondence between the ages of the buildings and the ages of the inhabitants is not as clear as might have been anticipated, except in the vicinity of Woodside Way and the remaining parts of the old village, where most of the people over 60 years of age are found. In this more southern section a pocket of younger people live in the Wells Road area.

South Parks shows no such areal differentiation, the older folk being dispersed throughout the precinct as a part of Corporation policy.

In Calderwood a contrast is seen between the western and eastern parts of the precinct. Many householders over 50 years of age live in the western section, and a relatively small number scattered through the eastern part. The line between these two sections follows from Struthers Crescent along Blackbraes Road, Maxwellton Road and Buchandyke Road so that the area with more older people almost coincides with early developments west of Calderwood Road and developments 4, 7, 8 and 9 that are more centrally located. A particularly marked clustering of older people within a quarter of a mile of the neighbourhood shopping centre, includes a row of old folk's cottages in Alison Lea. It has been the policy to have old people near shops and other neighbourhood facilities in East Kilbride.

Craigshill's adult population is very young with 95% of the householders and their spouses being under 50 years

of age. Marked contrasts are not as clear in Craigshill as they are in the other residential units. Deans District has much more contrasting age groups. The area north of Deans South has a markedly older population with 42% of the householders in the sample over 50 years compared with Deans South where only 17% are over 50 years.

Distribution of Pre-School Children Just as there are differences in the settlement pattern according to age of the adult population, the spatial distribution of other groups in the population varies. In the Scottish New Towns there is a high correlation between the ages of the settlements and the ages of children, the newest settlements having the greatest numbers of infants. Deans again proves an exception, for the reasons already mentioned.

Table 12.9 Pre-school children in residential units

	<u>Wood- side</u>	<u>South Parks</u>	<u>Calder- wood</u>	<u>Craigs- hill</u>	<u>Deans</u>
Households with pre-school children:					
1 child	20	30	88	55	17
2 children	9	11	38	23	3
3 children	2	2	7	6	-
4 children	-	-	1	-	-
Total pre-school children in unit	44	58	189	119	23
No. of households with pre-school children	31	43	134	84	20
Percentage of total households	27.9%	47.3%	36.6%	57.5%	27.0%

In Woodside the division between the north and the south is not nearly so marked as with the distribution of the adult population, but a greater density of pre-school children is found in the north and in the south-west of the precinct than in the County Council houses in the south. Twenty per cent more of the households in South Parks have pre-school children in them than in Woodside, but no area within the precinct stands out as having a greater density.

The distribution of pre-school children in Calderwood approximates the distribution of younger householders, thus it has many more pre-school children in the eastern part of the neighbourhood unit than in the west.

In Craigshill all cells have at least 50% of the householders with children under five years old. The difference between the north and the south of the settlement in Deans District is significant. Deans South has a far greater density of pre-school children, a fact that is not surprising when account is taken of the lower ages of the adult population in that section. Only 11% of the houses north of Deans South have pre-school children.

Distribution of School Children (5-14 years) The distribution of other age groups in the population can likewise be described. Many of the patterns correspond in some way to the growth of the unit concerned.

Table 12.10 Age groups of the population (excluding householders and their spouses) in residential units (Percentages = percentages of total survey population)

<u>Age</u>	<u>Woodside</u>		<u>South Parks</u>		<u>Calderwood</u>		<u>Craigshill</u>		<u>Deans</u>	
	No.	%	No.	%	No.	%	No.	%	No.	%
0-4	44	10.1	58	17.9	189	13.5	119	23.2	23	10.0
5-9	57	13.1	41	12.7	177	12.7	53	10.3	26	11.4
10-14	56	12.9	26	8.0	142	10.2	32	6.2	10	4.4
15-19	38	8.7	12	3.7	83	5.9	7	1.4	20	8.7
20+	30	6.9	14	4.3	58	4.2	14	2.7	19	8.3

In Woodside in the section along Woodside Way and to the west of it, that is, in an area extending over both old and new developments, there are only seven children in the sample between five and nine years. This means that only 5% of these houses compared with an average of 51% for the whole precinct, have children in this age group. Eighty-eight per cent of the five to nine year olds are dispersed in the area east of Woodside Way and the northern parts of the precinct. Whereas pre-school children are found throughout South Parks there is some spatial variation in the five

to nine year group. The eastern part of the precinct has a relatively large number of these children, and this corresponds with the earlier section to be built. Fewer primary school children are in the west of the precinct; and nowhere are there many children over ten years of age.

The area that stands out as having very few children of any age in Calderwood is limited to the vicinity of Calderwood Square which has already been identified as having a noticeably older population. In the Wingate Drive and Stobo section of the town there are also fewer school children than elsewhere. However, in other parts of the central area of this neighbourhood unit is found a denser ten to fourteen year population than is found either south-west of Maxwellton School or east of Long Calderwood School.

With reference to Craigshill, the two most significant features are the lack of difference among the cells and the decrease in the number of children in successive age groups in each cell. Deans provides a significant contrast to Craigshill. More pre-school children and five to nine year olds are found in Deans South than in the rest of the precinct, although there are considerably fewer of the latter group. The ten to fourteen year olds in the sample are more evenly distributed through the whole district.

Distribution of People 15 years and over The striking feature among the residential units in respect of the population of fifteen and over, excluding the householders and their spouses, is that with the exception of Deans, the newer the precinct, the smaller the relative proportion of the population in this group so that in Craigshill 4% of the population in the sample falls within this category, and in Woodside the figure is 16%. Some of these people are dependents either because they are still at school or are incapacitated or because they are elderly relations no longer supporting themselves. The remainder are independent and it is because this group normally have fewer family responsibilities and ties that they tend to participate in a more active social and community life, along with the people who are not bound by the needs of young families. Hence, because the statistics show that generally the newer

the residential unit the more young families there are, and the smaller the number of single people over fifteen years, it is conceivable that community activities for adults might be limited simply because the people who would normally be most involved are not present in the population. Activities concerning families, parents and young children are more likely to make their appearance first, rather than activities enjoyed by the teenage population. This is something that has given rise to many complaints by and on behalf of the teenagers.

In Woodside the majority of teenagers (15-19 years) are scattered over the area east of Woodside Way, while the older men and women are found mainly in the area south of the Bighty Burn - Woodside Way Path. Teenagers are also scattered throughout South Parks while the older group tend to be found more in the south-west of the town, but the small size of the sample in this case limits any further generalisation.

The distribution of fifteen to nineteen year olds in Calderwood provides a more definite pattern, with a higher density in the north-west of the unit, particularly around Burns Park. This coincides with the section of the neighbourhood unit where the time spent in East Kilbride by the inhabitants, is longer than the average.

The Craigshill sample shows a certain spatial pattern of the homes of those over fifteen years who do not come into the category of householders or their spouses. In Craigshill West there are fifteen such people and in Craigshill East there are six, but none in either of the other cells. Again the small numbers require this to be regarded with caution. As with the distributions in Deans already discussed, more marked variations occur than in other residential areas. It is the northern part of the district that has most in the fifteen to nineteen year group. Fifty per cent of the houses there have members of this age group compared with only 11% in the oldest part of Livingston Station. In Deans South about 17% of the houses have teenagers living in them. A similar pattern occurs with the adults over twenty years, in this category. They are found in 38% of the households in the north, 21% in the oldest part of Livingston and 10% in Deans South.

Summary

The study of the spatial distribution of different age groups within each residential unit identifies certain sections where

- (1) either there is a predominance of one or two groups, as in Deans South which has many young adults and pre-school children; or
- (2) there are more of a specific age group compared with other parts of the unit although there may not be a large number of people involved, such as the greater numbers of teenagers in the north-west part of Calderwood; or
- (3) there is almost an absence of a particular group, such as pre-school children in the northern part of Deans.

As a result sub-areas in some residential units can be delineated.

(a) Woodside has a large number of families with young parents and pre-school children north of the Bighty Burn - Woodside Way footpath, while in the east there are many families with slightly older children as well as more of the precinct's teenage population. The south of the precinct has more of the older householders with a markedly older population, and few younger children in Woodside Way.

(b) The distributions in South Parks are intermixed, the main differences being seen in the population of primary school children which has the majority living in the eastern portion of the precinct.

(c) Calderwood shows a threefold division with older people dominating the area near the neighbourhood centre, young families and many pre-school children in the east, and many older people and a bigger teenage group in the west.

(d) Craigshill, like South Parks cannot be considered as having a definite pattern of age groups although the small teenage group in the district is found primarily in the northern cells.

(e) Deans District, in relation to age groups, as in other settlement patterns, has the most outstanding distributional characteristics. Except for an even distribution of the ten to fourteen year age group there is a difference between Deans South and the rest of the district. Deans South has

a young population with many children under ten years and few in the older groups. The northern part of the district and the old part of Livingston Station has an older adult population, and few young children, but more of the people in the group over fifteen years.

These age groupings may or may not have an influence on the activities and attitudes of people in different parts of the residential unit, or in the whole of the individual units. Where there are more distinct spatial variations of age groups, the more likely it is that any effects of such groupings will be apparent.

Shopping is an activity that is regarded as a pleasure by many and something more than a pure necessity. Hence in this respect shoppers fall into two broad groups: those for whom speed and convenience are the major criteria of good shopping provision; and those who treat shopping for their daily requirements as an outing and even as a social event in each day's or week's programme. The location of shopping centres could be important in the development of a community spirit as well as a focal point in the life of the community.

The location and policy of shopping provision in the survey areas have been described in the previous section so here it is only necessary to describe the shopping patterns that became evident when studying a series of maps prepared from the results of the survey.* It should be remembered that the shopping centres are located fairly centrally in Calderwood and Woodside while in South Parks and Leams they occupy more peripheral positions, and in Craighill the district shopping centre had not been completed at the time of the survey. Also, the Development Corporation control the types of trades to be carried on as well as the numbers, locations and sizes of shops in their towns.

The questionnaire (Appendix 2) was planned to take into account a selection of convenience goods, such as groceries, meat and vegetables, that is, things needed frequently and not requiring much comparison buying; and durable goods, that is, goods that are required only occasionally and

* Examples of the maps appear in Volume II.

CHAPTER XIII

SHOPPING HABITS AND THE USE OF SERVICE FACILITIES

SHOPPING HABITS

Facilities provided for shopping are one of the aspects relating to the self-containment of any region, town, or district. These justify close attention because shopping occupies a large proportion of the population, men, women and children all being involved at different times. Shopping is an activity that is regarded as a pleasure by many and something more than a pure necessity. Hence in this respect shoppers fall into two broad groups: those for whom speed and convenience are the major criteria of good shopping provision; and those who treat shopping for their daily requirements as an outing and even as a social event in each day's or week's programme. The location of shopping centres could be important in the development of a community spirit as well as a focal point in the life of the community.

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The questionnaire (Appendix 2) was planned to take into account a selection of convenience goods, such as groceries, meat and vegetables, that is, things needed frequently and not requiring much comparison buying; and durable goods, that is, goods that are required only occasionally and

* Examples of the maps appear in Volume II.

demand for selection, such as furniture and clothing. It was realised that local corner shops are used by most households at some stage whether or not milk and bread are bought there. In order to gain an insight into wider shopping patterns interviewees were asked where they buy most of their groceries, green groceries, etc., although it was never assumed that all of any one product is bought in the one shopping centre. Nor was it assumed that the area named is necessarily the one visited most frequently because a local corner store might be visited daily for odds and ends yet the main shopping expeditions are elsewhere. However the assumption was made that more importance is attached to the area where the respondents buy most of the products listed and that for convenience goods at least, such areas are visited fairly regularly. When respondents considered several areas of equal importance all places were taken into account.

1. CONVENIENCE GOODS

Most people make one or two big shopping expeditions per week and buy only a few things at other times. Frequently the bulk of the shopping is done at weekends when the family visits the shopping centre together. The location of the shopping centre used most often is dependent on car ownership, local bus routes, level of fares, and distance to alternative shopping areas, the possibility of shopping at co-operative stores and cut-price shops, the desire for variety and the selection offered, the opportunity to combine shopping with a visit to relatives and friends, the chance to continue shopping in an area of former residence, the wish to go to a crowded, big, or bustling area such as Glasgow on Saturday, and the location of shops in relation to the place of the wife's employment when shopping is done primarily during lunch hours or after work.

Shopping for groceries has been discussed in detail because more people in each precinct visit shopping centres regularly for groceries, than for any other group of products.

Although some correlation is likely between the shopping patterns for most convenience goods it will not be perfect. The major reasons for a difference in patterns of shopping for groceries and green groceries are related to the more perishable character and greater weight and bulkiness of the fruit and vegetables. Many grocers and supermarkets stock green groceries that have a wide demand so it is not essential for a green grocery to exist in all localities. Nor is it necessary for all produce to be bought from a store during certain seasons when market gardens are found nearby, as they are in the Livingston environs. Several of the interviewees said that because they have their own gardens, they find it unnecessary to buy much in the way of fruit and vegetables, and others claimed that they buy most of this kind of food, tinned, frozen, dried, or processed. However, the majority of people buy fresh fruit or vegetables at least once a week.

As with groceries, the two features influencing the purchase of meat, are the perishable quality and the possibility of getting some meats in tins, pre-packaged, or frozen, at a supermarket or grocer. Hence for some people, visits to buy meat from a grocer are infrequent and the place of purchase is not dependent entirely on the location of the butcher's shop.

In the same way as green groceries are available not only from a green grocer, and meat is obtainable not only from a butcher, chemist's products are not necessarily bought from a chemist. Hence some answers referred to shops stocking chemist's products although such shops are not chemists', some referred to dispensing chemists, and others to non-dispensing chemists. Generally respondents implied that they treated a trip to a chemist as a matter of urgency and in some cases the only reason they visit a chemist is to collect medicaments prescribed by a doctor.

of the main roads leading to the town centre. Approximately 70% of the people there, shop in the town centre rather than at the local shops which are only half the distance away. By contrast, in the rest of the western side of the precinct, approximately 85% of the households use the

(a) WOODSIDE (Fig.13.1)Table 13.1 Shopping for convenience goods by Woodside residents (Total households = 111)

	<u>Groceries</u>	<u>Green Groceries</u>	<u>Meat</u>	<u>Chemist's Goods</u>
Woodside	30	14	12	10
Bighty Avenue	24	17	25	78
Mobile shops	6	24	36	-
Town centre	32	39	18	19
Kirkcaldy	11	11	13	-
Glenrothes and elsewhere	5	2	1	1
Elsewhere	3	4	6	2
Not applicable	-	-	-	1

(i) Groceries The two small shopping centres in this precinct, one in Bighty Avenue, and the other in Woodside Way, are located so that all residents are within half a mile of the shops.

The majority of people buying most of their groceries at either of the local centres also use the other one for some shopping, although not necessarily for groceries. Most of the residents in the south-west around Woodside Road and Well Road, do not buy their groceries in Woodside. Other than for this area, most of the people living in Woodside Way and further west, as well as people scattered throughout the eastern part of the precinct, use the Woodside Way shopping centre. Most of those living east of Woodside Way use the Bighty Avenue shops. The people who rely most on vans for their groceries live in more peripheral areas to the north and south of the precinct.

The area in the south-west from which few people do most of their grocery shopping in Woodside, is near one of the main roads leading to the town centre. Approximately 70% of the people there, shop in the town centre rather than at the local shops which are only half the distance away. By contrast, in the rest of the western side of the precinct, approximately 85% of the households use the

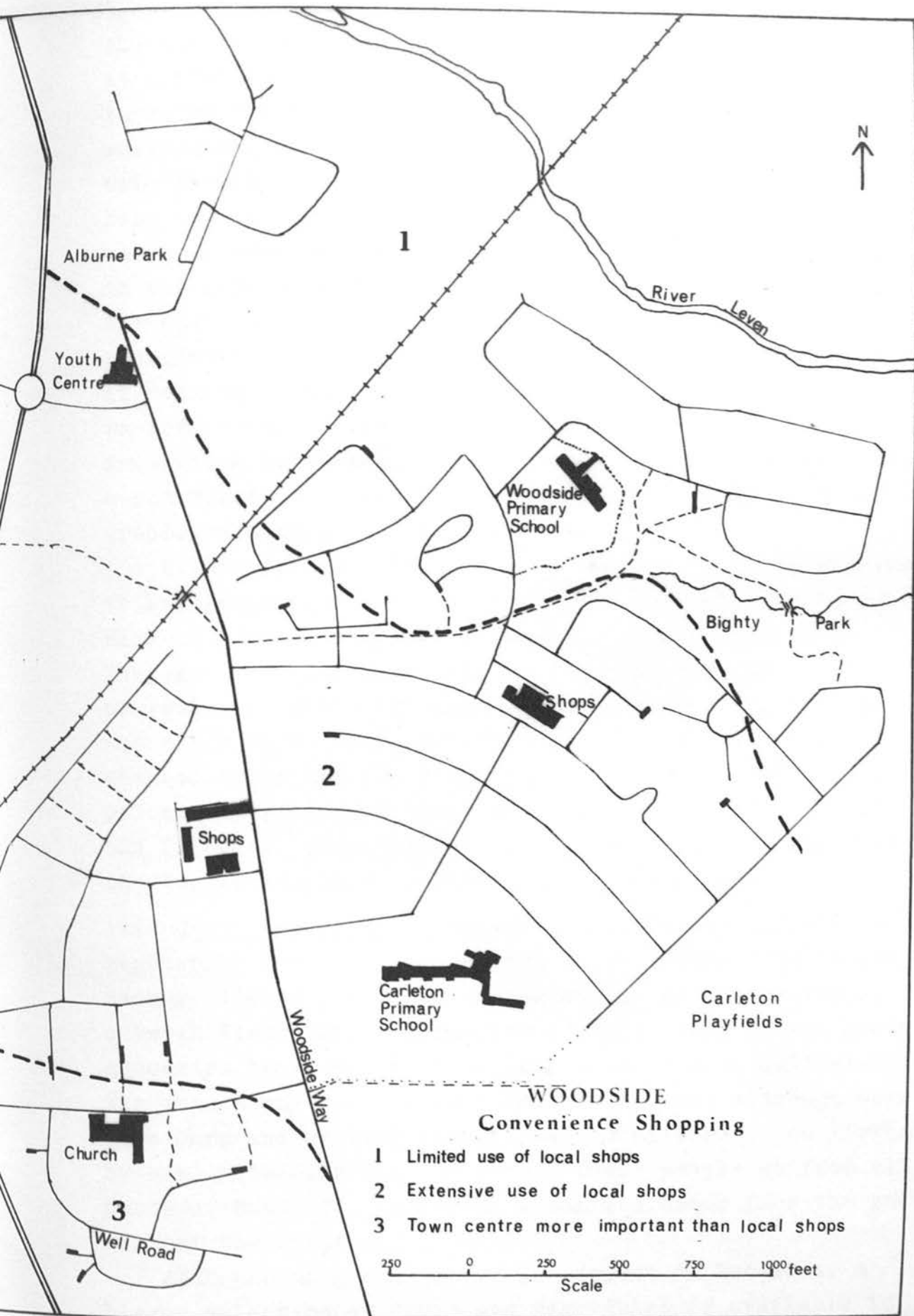


Fig. 13.1

local shopping facilities. The road pattern encourages these people to go near these shops when they are travelling elsewhere, and in addition, a bus stop near the shops makes it convenient for passengers alighting from buses to shop there on the way home from work. Those living in the south-west, use a different bus stop, so that a separate trip is always necessary for shopping. Both the railway line and the A92 road tend to act as a deterrent to movement towards the town centre, for the people living in the more central, western parts of the precinct. Also, the older population in the Woodside Way area are mainly pensioners, and the cost of bus fares would prove a hardship if regular trips to the town centre were made. Apart from an area within about quarter of a mile of Bighty Avenue, from which most people also use the local shops, there is a scattered distribution of people who do most of their grocery shopping in the town centre.

No-one in the sample goes to another precinct regularly, to buy groceries. Of the people who shop frequently in Kirkcaldy and elsewhere, no marked distribution is obvious. They go there for a variety of reasons: the buses are convenient; they work there and shop during lunch hours and after work; they shopped there formerly and have not changed their habits; they find more variety and competitive prices; they combine their shopping with visits to relatives and friends. Significantly, very few people living near the bus routes, shop in Kirkcaldy for groceries.

(ii) Green Groceries Although the qualities of fruit and vegetables normally demand that these products be bought nearby, 14% of the Woodside households in the sample, go outwith Glenrothes. A quarter of this group obtain green groceries from nearby farms, and from friends and relations. The others buy from shops in Kirkcaldy, and although some have cars and/or work there, several of them go to Kirkcaldy by bus, primarily for shopping. These people go from all parts of Woodside, including a small cluster from the south-west of the precinct.

Although no green grocer is present in Woodside, a bigger selection of fruit and vegetables is available in

Bighty Avenue than in the Woodside Way shopping centre. This helps to explain the slightly larger numbers going to the former. People who buy green groceries from shops in Woodside are scattered throughout the precinct except in the Wells Road - Woodside Road area in the south-west, and areas towards the eastern and western edges of the precinct. For these people, mobile shops are of greater importance for buying fruit and vegetables. Vans are frequently and regularly in the precinct, and reduce the inconvenience of carrying heavy parcels over long distances.

The town centre is the most important single place from which Woodside residents obtain their green groceries. Although few of the people buying green groceries in the town centre live in the eastern half of the precinct or in Alburne Park, they are found dispersed throughout the rest of the precinct.

Generally, then, people in the eastern and western parts of the precinct make particular use of vans, while those in the central part of the precinct make more use of the local shops and the town centre.

(iii) Meat Although Woodside residents who buy meat from local shops are found over most of the precinct, those in the west tend to go to Woodside Way, while those in the east tend to go to Bighty Avenue. In a marked peripheral area which includes the western edge, the south-west, and Alburne Park, no-one buys much meat from local shops. Shopping is done from mobile shops by people in the south, and at the town centre by people in the north. The town centre is also visited for this purpose, by people living in other parts of Woodside.

With 19% of the households buying meat outside Glenrothes, the significance of Kirkcaldy is again highlighted. As for the purchase of the other convenience goods, there are in addition to those who work in Kirkcaldy, some who take a bus seven miles to the larger centre, rather than buy in Woodside. Another 4% go to Markinch. Most of the reasons given for going beyond Woodside, were concerned with the quality and price of the meat.

(iv) Chemist's Goods Nearly all the Woodside residents use the local shops for chemist's goods, but as the only chemist in the precinct is in Bighty Avenue, more people go there rather than buy from a general store in Woodside Way. Of those going to a chemist in the town centre, most live in the northern part of the precinct, and in the south-western section near Woodside Road.

(b) SOUTH PARKS (Fig.13.2)

Table 13.2 Shopping for convenience goods by South Parks residents (Total households = 91)

	<u>Groceries</u>	<u>Green Groceries</u>	<u>Meat</u>	<u>Chemist's Goods</u>
South Street	9	8	9	53
Mobile shops	13	19	36	-
Town centre	57	56	35	30
South Parks and elsewhere	1	1	-	2
Rimbleton Precinct	1	1	-	-
Kirkcaldy	8	4	9	3
Elsewhere	2	2	2	2
Not applicable	-	-	-	1

(i) Groceries The temporary shopping centre in South Street is adjacent to the south-eastern part of South Parks, on land designated for an extension of the town centre. Table 13.2 shows of what small importance the shopping centre is, for the purchase of groceries. Nearly all of those who use South Street live in the northern and eastern parts of the precinct. A few customers find these shops convenient because the delivery of groceries can be arranged, but the small size of the shopping centre, the limited choice of shops, and the proximity of the town centre encourage people to travel the short distance further to the town centre, or to make use of the mobile shops. Thus, about a quarter of the people in the south-west of the precinct use the mobile shops for their groceries, but fewer in the east. Sixty-three per cent of the households

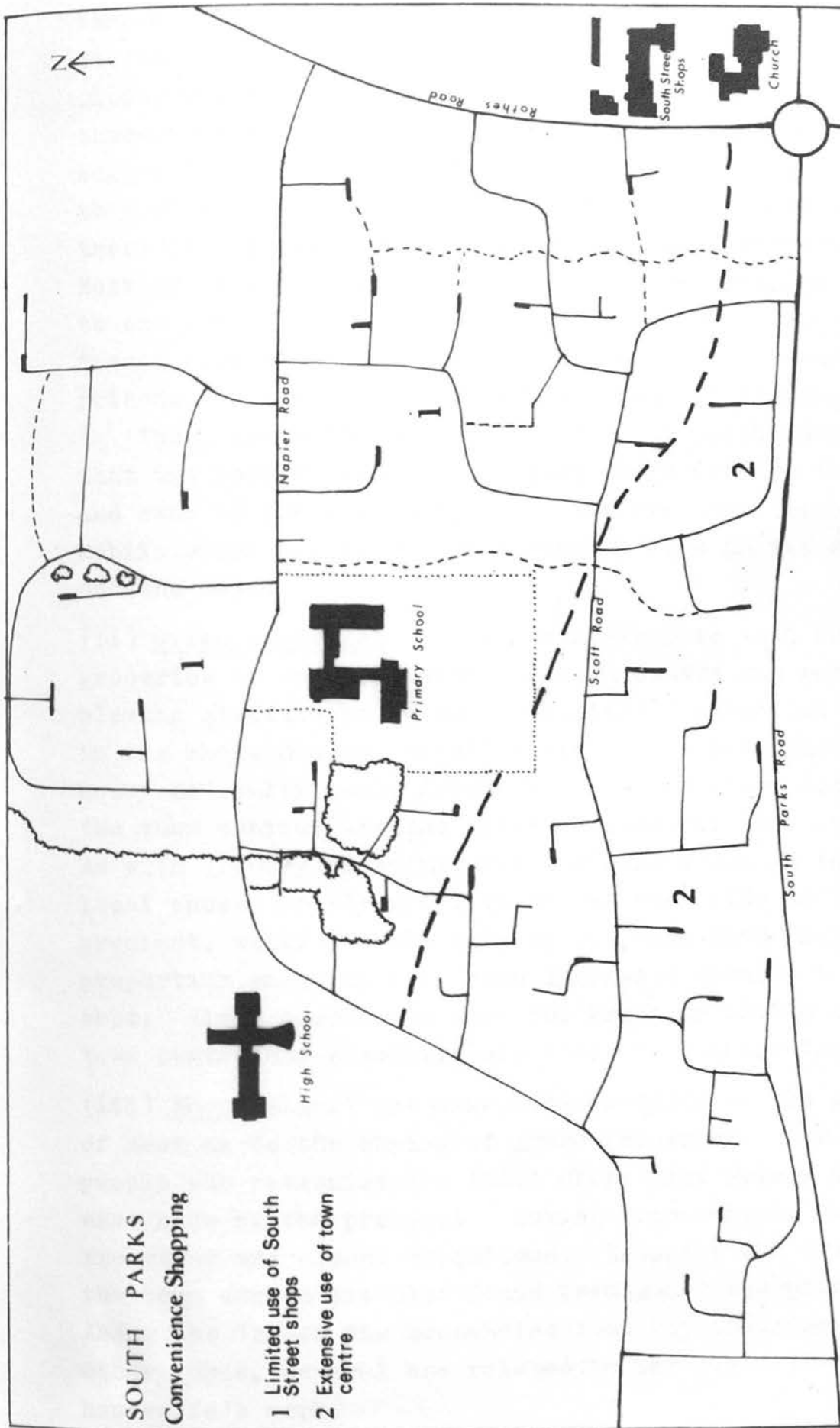
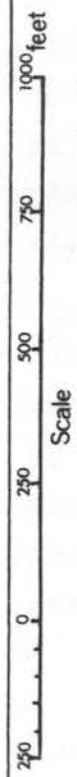


Fig.13.2



that purchase most of their groceries at the town centre, are found in all parts of South Parks. Those people who travel to Kirkcaldy for groceries, are by no means all car owners. Most of them live on the western side of the precinct, so that they are further away from the local shops, and a greater distance from the town centre than those in the east and north. Some of the interviewees suggested that since they catch a bus to do their shopping, they might as well go the whole way to Kirkcaldy where there is a greater choice, and prices are generally cheaper. Nothing in Woodside persuades South Parks residents to go to the other side of the town for shopping. People who travel elsewhere for their groceries, buy from personal friends, in areas where they have lived previously.

Thus, the major shopping pattern in South Parks shows that the people using the nearest shops live in the north and east of the precinct, while the greatest users of mobile shops and stores in Kirkcaldy live in the south-west and the west.

(ii) Green Groceries A pattern similar to that for buying groceries is apparent with the town centre and mobile shops playing significant roles. The limited selection available in the shops nearby, together with the convenience of buying heavy and bulky goods from a van, or the short distance to the town centre, are the chief reasons for this pattern. As with grocery shopping, the few people who go to the local shops, nearly all live on the east side of the precinct, while few who rely on the vans live there. The proportion shopping from vans increases towards the south-west. Also, people who shop for green groceries at the town centre and elsewhere are found throughout the precinct.

(iii) Meat Almost the same remarks apply to the purchase of meat as to the buying of green groceries. The few people who patronise the local shops live mainly on the east side of the precinct. Buying from vans is much more important and almost ubiquitous. Shoppers who travel to the town centre are also found throughout the precinct. Among the 12% of the households that buy their meat from other towns, several are related to the place of the housewife's work.

(iv) Chemist's Goods Table 13.2 shows clearly that more residents in South Parks shop in South Street for chemist's goods than for any other single product covered by the survey. Again, a higher proportion of people living on the east of the precinct go to the South Street chemist, than are found in the west. The town centre is the shopping area supplying chemist's goods to many in the south-western part of the precinct. The few people who buy from a chemist in Kirkcaldy and elsewhere either patronize a shop near their work, or obtain the products through contact with people employed in the trade.

(c) CALDERWOOD (Fig.13.3)

Table 13.3 Shopping for convenience goods by Calderwood residents (Total households = 376)

	<u>Groceries</u>	<u>Green Groceries</u>	<u>Meat</u>	<u>Chemist's Goods</u>
Calderwood	147	159	146	219
Mobile shops	9	34	39	-
Town centre	175	130	115	102
Calderwood and elsewhere	6	5	5	9
East Mains Neighbourhood	8	14	20	23
East Kilbride (excluding Calderwood), and elsewhere	3	4	3	5
Glasgow	22	26	42	17
Elsewhere	6	4	6	1
Not applicable	-	-	-	1

(i) Groceries Of the two shopping areas where groceries can be bought, the centre at Calderwood Square caters for a greater proportion (124 households) than the shops at Maxwellton Avenue (23 households). This is partly because Calderwood Square is central to a larger proportion of the population, and is on the route of buses serving other parts of the neighbourhood unit. Furthermore, a greater variety of shops is found in Calderwood Square, and as most people prefer to make several purchases during their

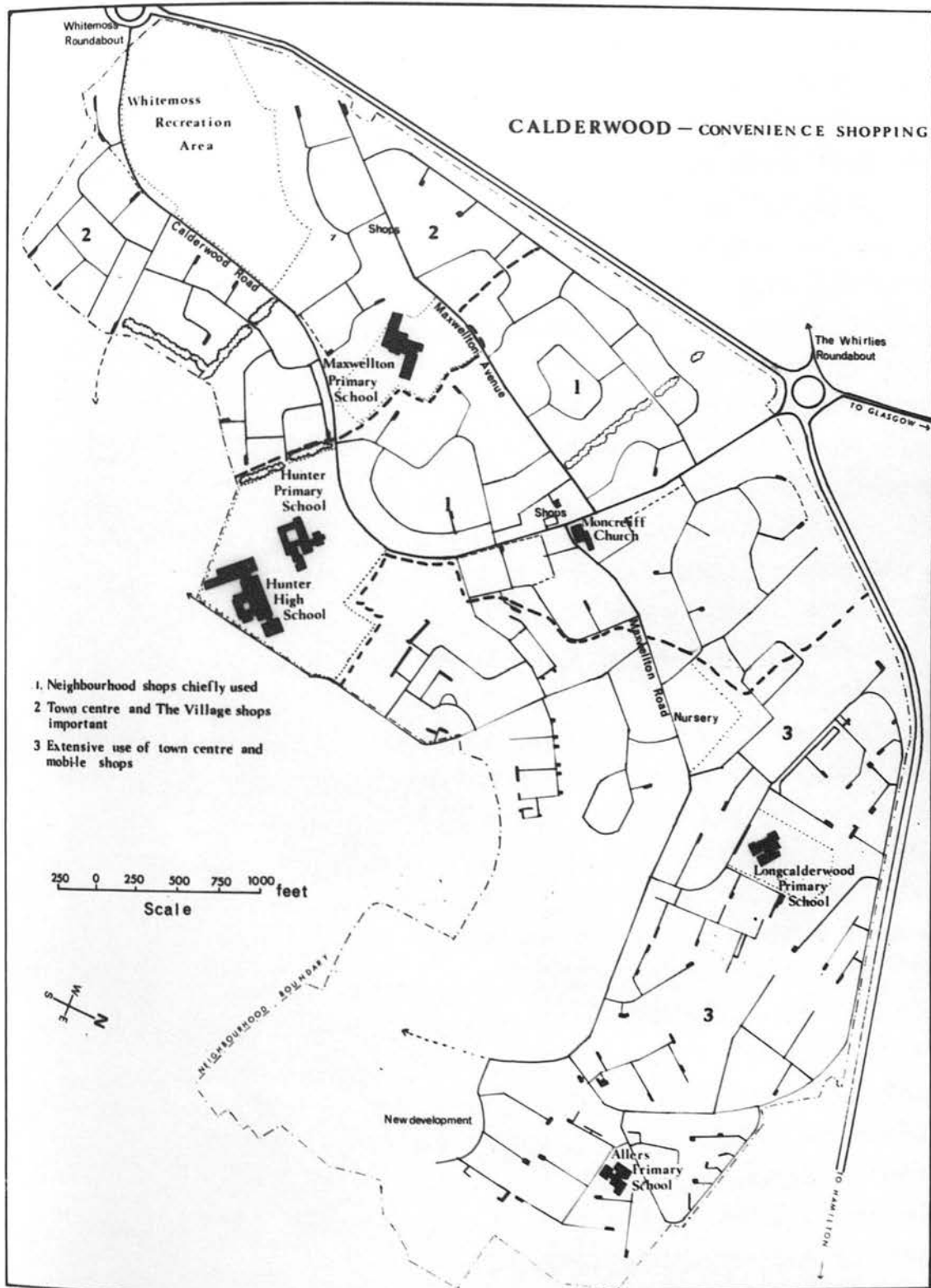


Fig. 13.3

shopping expeditions, it is often more convenient. A further aid to shoppers at Calderwood Square is the space available for parking cars. Parking in Maxwellton Avenue is mainly limited to the roadside.

In the western part of the neighbourhood unit (excluding the south-west), the majority of people buy groceries locally, either at Maxwellton Avenue or Calderwood Square, or both. This includes the central area within about quarter of a mile of Calderwood Square, but excludes Geddes Hill and Whin Hill where buying from vans obviates the necessity of carrying heavy bags up the hill. However, most people in the south-western extension of the unit buy groceries from the town centre, there being little difference between the distances to the neighbourhood centre and to the town centre. In the eastern part of Calderwood a minority buy their groceries from the neighbourhood shopping centre. A larger number of people purchase their main grocery orders from the vans, and proportionately more go to the town centre, than from the west. Several reasons can be suggested for this apparent anomaly. The corner shop had not been built when the survey took place, so at that time the nearest shopping centre was at Calderwood Square. Most of the people do not rely on vans for their groceries, because they consider that goods bought from mobile shops are invariably more expensive and the same choice is not available. The distance of a mile to Calderwood Square from the eastern developments warrants the use of a car or public transport for weekly shopping. As the bus fare to the town centre is only one penny dearer than it is to Calderwood Square, most people believe that the extra choice, the greater likelihood of "specials" and the opportunity to wander around a number of shops, justify the longer trip. For those with cars, parking is available at the town centre. The longer travelling time and the greater distance are not sufficient to act as deterrents to shoppers from the east of Calderwood.

Only 2% of the households in the sample go regularly to the old village (East Mains) for their weekly shopping, although an additional 1% rely on delivery of their

groceries from the village. Most of the people patronizing shops in the old village, live in the south-west of the neighbourhood unit. For some, it is the persistence of old shopping habits that causes them to shop there. They have lived in East Kilbride for many years and have always bought their groceries at those shops. Some interviewees stated their preference for privately owned shops and the small scale enterprises that permit personal attention and less sense of mass production. Another incentive to shop in the village is the willingness of the shopkeepers to arrange for the delivery of orders. In addition, several answers from people in the Stobo - Tannahill Drive area, implied that shopping in the old village is something of a status symbol.

Shops in Glasgow are visited more by people in the eastern part of the unit than in the western section. In particular this is a feature of the Tannahill Drive - Gibbon Crescent area and the north-eastern developments. Generally this applies to households in which the women work in Glasgow. Either they do their shopping there during the week, or they make another trip at the weekend.

Certainly it is not merely proximity that determines where people buy most of their groceries. Among those who shop in other towns, three who go regularly to Rutherglen claim that goods are much cheaper there. None of these people work there, none have previously lived there, and one of these households does not even own a car.

It is significant that almost 60% of the households in Calderwood do not buy most of their groceries in Calderwood, and that barely a third go to the neighbourhood shopping centre regularly. Therefore, it is questionable whether the shopping centre does act as a true focal point of the neighbourhood unit.

(ii) Green Groceries In addition to the Maxwellton Avenue and Calderwood Square shops, a nursery and small shop in Maxwellton Road sell green groceries. The 6% of the households that obtain green groceries from this shop, are located mainly in the north-east of the unit. The distribution of the 45% who buy their green groceries in the

neighbourhood unit, is uneven, with a much higher density in the central third of the unit, and very few in either the south-west or the north-east. Although the number of people who buy from vans is comparatively small, they are mainly dispersed throughout the south-west and the north-east. Many of the 35% who go to the town centre for these goods are found in these two sections and in the southern part around Tannahill Drive, as well as over the rest of the unit.

Most of those who shop in the village live in the area around Shira Terrace and Ness Drive, although the delivery service available attracts many customers from various parts of Calderwood. People who shop in Glasgow for green groceries, are mainly housewives who work in the city, and find it convenient to shop near their place of employment.

(iii) Meat A greater density of people buying meat at the neighbourhood shops is found in the west of the unit than in the east. This difference between the east and west has already been mentioned in reference to the other food products. The division between the two extends roughly from Long Calderwood School to Struthers Crescent, Maxwellton Road and Buchandyke Road. South-west of Maxwellton School fewer people go to the neighbourhood shops for their meat, as many go to the old village. Mobile butchers serve all parts of the unit, but have greatest custom in the two sections where fewest people buy from local shops. Similarly most of the people who obtain their meat from the town centre, are found in the eastern and south-western parts of the unit.

The majority of people buying meat outside East Kilbride are also found in the eastern and western sections rather than in the central parts of Calderwood. Thirteen per cent of the sample population buy their meat in Glasgow. Some of them work in the city, some visit relatives there, but several others make weekly expeditions to buy meat and other provisions from shops they consider more reasonable, or areas in which they have lived formerly.

(iv) Chemist's Goods As in the residential units of Glenrothes, well over half of the households buy chemist's goods from a shop in the residential unit. Fewer people in the south-west and the north-east of Calderwood go to the neighbourhood centre, than in the central part. The chemist at the town centre is visited by people in all parts of Calderwood, but particularly by people furthest away from the neighbourhood centre. Several interviewees suggested that they prefer the town centre to Calderwood Square, even for urgent requirements, because the local shop is always so crowded and busy that the wait involved makes the longer journey worthwhile.

People who buy from the chemist in the old village, go there for one of two reasons. The group in the south-west do much of their shopping in The Village in any case, so chemist's goods are bought at the same time. Others visit the doctor in The Village, and as they seldom go to a chemist's shop, except to take prescriptions, they find it convenient to go to the shop near the doctor. Most of those who buy chemist's goods in Glasgow, work in the city or buy such goods during regular shopping expeditions.

(d) CRAIGSHILL

Table 13.4 Shopping for convenience goods by Craigshill residents (Total households = 146)

	<u>Groceries</u>	<u>Green Groceries</u>	<u>Meat</u>	<u>Chemist's Goods</u>
Craigshill	24	22	-	54
Mobile Shops	4	52	86	-
Craigshill and elsewhere	3	3	-	-
Bathgate	21	15	17	16
Edinburgh	10	11	17	20
Elsewhere	84	42	26	56

(i) Groceries Although supermarket corner stores have been built in three of the four cells, only 17% of the Craigshill households buy their major grocery orders at these outlets.

Little difference exists among the cells in the proportions using these stores for their main grocery orders - 20% in Craigshill West, 18% in Craigshill East, and 14% in Almond West. In Almond South which has no store, no-one shops within the Craigshill District. These limited shopping facilities are not offset by the extensive use of the mobile shops which visit the district regularly. By far the most important place for grocery shopping is Pumpherston (61 households), and the chief attraction is a shop selling cut-price goods. It is particularly popular with those people who complain about the high prices in Craigshill. Pumpherston also has a few other shops selling convenience goods, so other purchases can be made during one trip. It is possible to walk across a field to Pumpherston in the finer weather, and is therefore within fairly easy reach of most Craigshill residents.

Other places visited regularly include Bathgate (15% of the households), and Edinburgh (7%). Regular bus services link both these places with Craigshill, but the expense of fares, and the infrequency of services limit the number of trips that can be made by some of the residents. Half of the women who buy groceries in Edinburgh, work in the city, but others travel there because they consider it is impossible to obtain the variety of goods they require, nearer. Sixteen per cent of the households obtain their groceries from places like Uphall, Broxburn, West Calder, Armadale, and even Glasgow, most of them doing so during frequent trips to visit relations. In Craigshill, at its present stage, the lack of a town centre, and a district centre, and the distance to limited facilities in another district cause people to shop elsewhere. Although Bathgate and Edinburgh are not the closest centres, the extra choice of shops and products, and the possibility of achieving several aims on one trip, make them more popular than other areas, both by car owners and by people who rely on public transport.

(ii) Green Groceries Fifteen per cent is a high proportion of people buying green groceries at shops in Craigshill when they must rely on goods supplied in the supermarkets.

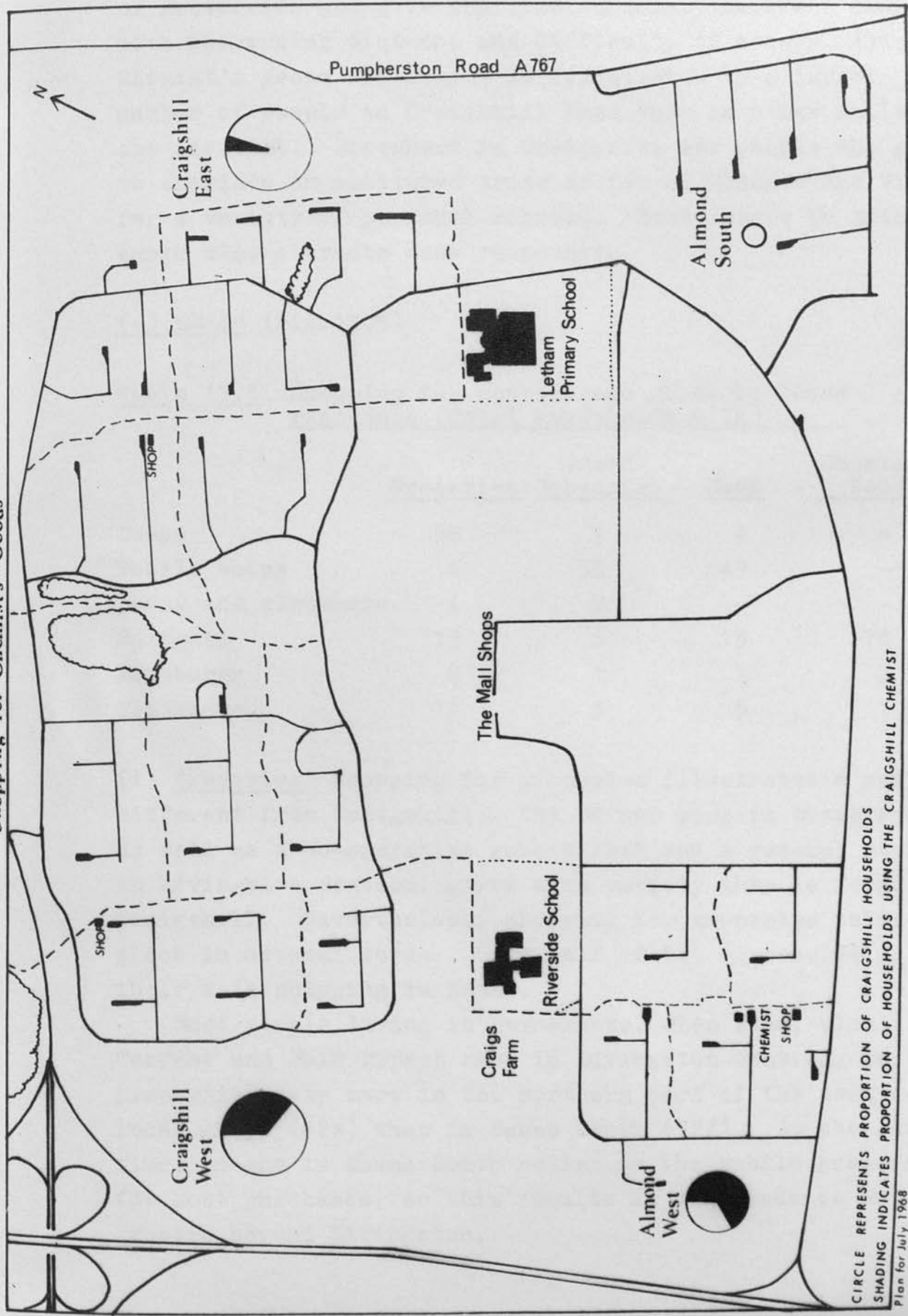
As in the other residential units, several people explained that they buy frozen and tinned foods more often than fresh fruit or vegetables. Because no strong nearby magnet exists for this type of shopping, the outlets patronized by Craigshill residents are scattered from Glasgow and Hamilton in the west, to Edinburgh in the east. Those who buy green groceries from as far away as Glasgow, do so during regular trips to see relatives. No-one makes a special trip to Edinburgh to purchase fruit and vegetables alone. Visits to friends, work, or other shopping are the prime reasons for regular journeys to Edinburgh.

The lack of a nearby outlet emphasizes the importance of mobile shops and vans, especially in Almond West where 64% of the households obtain green groceries from vans and 22% shop in Bathgate. People in the other cells tend to rely more on the supermarkets. The slightly greater distance from Almond West compared with the distance from the other cells, to Pumpherston, helps to explain the varying proportions in the cells, that go to Bathgate. The four people in the Almond South sample, and several in the other cells, buy most of their green groceries outside Livingston, in Pumpherston, Bathgate, Edinburgh, and elsewhere.

(iii) Meat There are no butchers in Craigshill, and no-one suggested that most of the household's meat is bought at a supermarket. This lack of shops is counteracted by buying from vans by 59% of the households. In the purchasing of meat there is very little difference between one part of the district and another. Pumpherston has fewer Craigshill residents buying meat there, than buying other food products. Only a quarter of the people who buy most of their meat in Edinburgh make weekly trips purely for shopping.

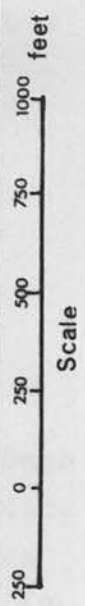
(iv) Chemist's Goods Because the chemist in Craigshill is not a dispensing chemist, several people are on a rota to take prescriptions to a dispensary so that urgent requirements can be obtained without too much difficulty. At the time of the survey, the chemist's shop was in a converted house in Almond West and its location had a considerable influence on the distribution of the people

CRAIGSHILL Shopping for Chemist's Goods



CIRCLE REPRESENTS PROPORTION OF CRAIGSHILL HOUSEHOLDS
SHADING INDICATES PROPORTION OF HOUSEHOLDS USING THE CRAIGSHILL CHEMIST
Plan for July 1968

Fig. 13.4



using it. The local chemist supplied 67% of the households in Almond West, 36% from Craigshill West, 18% from Craigshill East, and none from Almond South. The proportion of households going to the local chemist therefore decreased with increasing distance and difficulty of access. (Fig.13.4) Chemist's goods are bought in Pumpherston by a larger number of people in Craigshill East than in other cells of the district. Elsewhere in Craigshill are people who go to chemists in scattered areas as far as Glasgow and Wishaw, for a variety of personal reasons. Boots store in Edinburgh also attracts some residents.

(e) DEANS (Fig.13.5)

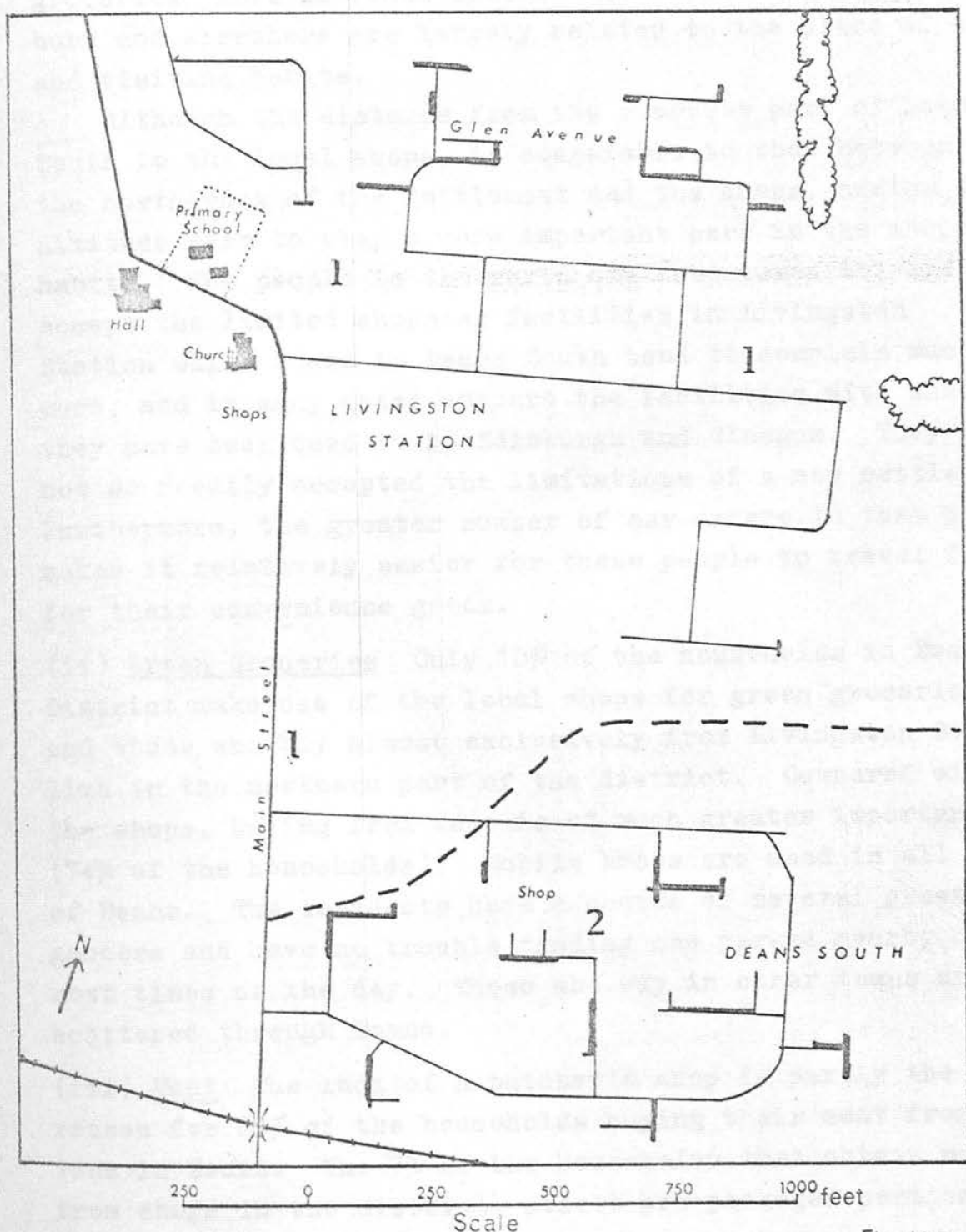
Table 13.5 Shopping for convenience goods by Deans residents (Total households = 74)

	<u>Groceries</u>	<u>Green Groceries</u>	<u>Meat</u>	<u>Chemist's Goods</u>
Deans	38	7	4	-
Mobile shops	4	55	49	-
Deans and elsewhere	4	2	-	-
Bathgate	15	6	15	70
Edinburgh	2	1	1	3
Elsewhere	11	3	5	1

(i) Groceries Shopping for groceries illustrates a pattern different from Craigshill. The corner shop in Deans South, as well as a co-operative supermarket and a general store in Livingston Station, gives more variety than is found in Craigshill. Nevertheless, shopping for groceries takes place in several towns. Only half of the households do their main shopping in Deans.

Most people living in Burnsknowe, Glen Road, Glen Terrace and Main Street shop in Livingston Station, so that proportionately more in the northern part of the town use local shops (62%) than in Deans South (52%). At the same time, no-one in Deans South relies on the mobile grocers for most purchases, so this results in a dependence on grocers beyond Livingston.

DEANS DISTRICT



Convenience Shopping

Fig.13.5

- 1 Shopping in Livingston Station and Bathgate
- 2 Shopping in Bathgate and Deans South

It is important to realise that the older people in the north, who have lived in Livingston Station for most of their lives, go mainly to the local shops and to Pumpherston where the attraction of cut-prices makes the journey seem worthwhile. Most of the people travelling to Bathgate for groceries, live in Deans South. Visits to Edinburgh, Blackburn and elsewhere are largely related to the place of work and visiting habits.

Although the distance from the remotest part of Deans South to the local shops, is comparable to that between the north-east of the settlement and the shops, custom and attitude seem to play a more important part in the shopping habits. The people in the north are accustomed to, and accept the limited shopping facilities in Livingston Station while those in Deans South tend to complain much more, and in many cases compare the facilities with what they have been used to in Edinburgh and Glasgow. They have not so readily accepted the limitations of a new settlement. Furthermore, the greater number of car owners in that part makes it relatively easier for these people to travel further for their convenience goods.

(ii) Green Groceries Only 10% of the households in Deans District make use of the local shops for green groceries, and those who buy almost exclusively from Livingston Station live in the northern part of the district. Compared with the shops, buying from vans is of much greater importance (74% of the households). Mobile shops are used in all parts of Deans. The residents have a choice of several green grocers and have no trouble finding one parked nearby during most times of the day. Those who buy in other towns are scattered through Deans.

(iii) Meat The lack of a butcher's shop is partly the reason for 66% of the households buying their meat from vans in Deans. The 7% of the households that obtain meat from shops in the district, select pre-packaged portions from the co-operative store.

Whereas 75% of the people in the north of the district buy meat from vans, only 59% of the households in Deans South do. At the same time, 22% of the households in the

north buy meat outside the district, compared with 34% in Deans South. This is a repetition of the patterns found in grocery shopping, where a greater dependence on Bathgate and elsewhere, by the residents of Deans South, was recognized.

(iv) Chemist's Goods As no chemist's shop exists in Deans, residents wishing to buy goods from a chemist, or to have doctors' prescriptions made up, must look to another town. Table 13.5 shows an almost total reliance on Bathgate. Apart from Bathgate having the nearest chemist, many people attend a doctor in Bathgate, and consequently obtain medications near the surgery.

(f) SUMMARY

Table 13.6 Grocery shopping patterns in the residential units (Percentage of households)

	<u>Wood- side</u>	<u>South Parks</u>	<u>Calder- wood</u>	<u>Craigs- hill</u>	<u>Deans</u>
Within the unit	48.6	9.8	39.1	16.4	50.0
Mobile shops and delivery	5.4	14.3	2.4	2.7	5.4
Within the unit and beyond	2.7	1.1	1.8	1.4	6.8
Town centre	28.8	62.6	46.5	-	-
Other unit	-	1.1	2.1	-	-
Elsewhere	14.4	11.0	8.0	79.5	37.9

A comparison of the main grocery shopping patterns in each residential unit shows clearly that different factors operate according to the nature of the unit, the development of the town centre, and the proximity and attractiveness of other centres. Woodside and Deans are the only units in which approximately half of the households buy groceries from the local shops, although there is an additional 5% if all people who do not leave the unit to buy their groceries, are taken into account. In Calderwood the attraction of the town centre is greater than the neighbourhood shops for those living more than half a mile

from the latter, because the town centre is easily reached on foot from the south-west of the neighbourhood unit, and by bus from the east. The town centre is a greater attraction to South Parks residents, mainly because of the inadequacy of the temporary South Street shops. In Craighill with no town centre, it is the attraction of cheaper prices in a nearby village that is important. It is not distance alone that determines the patterns of grocery buying, but distance is a common factor influencing these shopping habits. from other outlets varies according to the location of the town centre and other centres beyond the

Table 13.7 Green grocery shopping patterns in the residential units (Percentage of households)

	<u>Wood-</u> <u>side</u>	<u>South</u> <u>Parks</u>	<u>Calder-</u> <u>wood</u>	<u>Craigs-</u> <u>hill</u>	<u>Deans</u>
Within the unit	27.9	8.8	42.6	15.1	9.5
Mobile shops and delivery	21.6	20.9	9.0	35.6	74.3
Within the unit and beyond	1.8	1.1	1.6	2.7	1.3
Town centre	35.1	61.1	34.8	-	-
Other unit	-	1.1	4.0	-	-
Elsewhere	13.5	6.6	8.0	46.6	14.9

Considerable reliance is placed on the purchase of fruit and vegetables from vans in all residential units except Calderwood, where only parts of the unit utilise mobile shops to a great extent. Deans, for example, has no green grocery, no town centre, and Bathgate, the nearest main centre, is reached by an hourly bus service. In Deans some competition is provided because several vans serve the area, so they are given more custom than in some of the other units. Nor do Craigshill residents have local green grocers or a town centre, but 16% of the households buy fruit and vegetables in Pumpherston, nearby. Although neither of the groups of shops in Woodside has a green grocer, more produce can be bought through other outlets within the precinct than in South Parks where a larger number go to the town centre. The orientation of Woodside towards Kirkcaldy and more frequent bus service, help to explain

the larger number of Woodside residents buying goods there compared with South Parks. In Calderwood, green groceries are available from retailers in three parts of the neighbourhood unit, so a larger proportion of the households buy from local shops, but even then, 50% leave the unit to do most of this kind of shopping.

Where there is a local green grocer a larger proportion of the people shop in the residential unit. However, where no nearby green grocer is found, the proportion making do with what exists from other outlets varies according to the location of the town centre and other centres beyond the town.

Table 13.8 Meat shopping patterns in the residential units
(Percentage of households)

	<u>Wood- side</u>	<u>South Parks</u>	<u>Calder- wood</u>	<u>Craigs- hill</u>	<u>Deans</u>
Within the unit	33.3	9.9	39.1	-	5.4
Mobile shops and delivery	32.4	39.6	10.4	58.9	66.2
Within the unit and beyond	0.9	-	1.9	0.7	2.7
Town centre	16.2	38.5	30.6	-	-
Other unit	-	-	5.3	-	-
Elsewhere	17.1	12.1	12.8	40.4	25.7

Some similarities exist between the patterns occurring in the residential units for the purchase of meat, and the other food products. There is greater areal differentiation in Calderwood and Woodside, the two units which have butchers' shops, than in Craigshill and South Parks. Calderwood residents depend on vans to a much lesser extent than elsewhere, but even there 10% of the households buy their meat from mobile butchers. Deans relies most on the services offered by mobile butchers because the nearest shop is in Bathgate. There is then, a correlation between the use of mobile shops and the distance to the nearest butcher. Large numbers in all the New Towns, buy their meat beyond the town, and in most cases this is at the nearest large centre. The difference between the percentage in Woodside

and the percentage in South Parks who go to Kirkcaldy for meat, shows the same characteristic as for the other products, in spite of the small difference in distances between them and Kirkcaldy. The main reason appears to be their location with reference to main roads and public transport. The main road and nearly all buses going through Woodside, go to or from Kirkcaldy whether or not they go on to the town centre. The shorter distance from South Parks to the town centre encourages more people to walk there, and those using public transport must go via the town centre. Although some consider that it is worthwhile remaining on the bus and continuing to Kirkcaldy, many feel that the extra fare and half hour each way in the bus are not warranted.

Table 13.9 Shopping for chemist's goods in the residential units (Percentage of households)

	<u>Wood- side</u>	<u>South Parks</u>	<u>Calder- wood</u>	<u>Craigs- hill</u>	<u>Deans</u>
Within the unit	79.3	58.2	58.2	37.0	-
Within the unit and beyond	0.9	2.2	2.9	-	-
Town centre	17.1	33.0	27.1	-	-
Other units	-	-	6.1	-	-
Elsewhere	1.8	5.5	5.3	63.0	100.0

Where chemists are situated in residential units they are used by more people than are the other convenience goods stores that have been discussed. This is particularly so in the case of dispensing chemists. Residents in Livingston who are at a greater disadvantage in this respect than the other New Town residents, commented more about the lack of such facilities than about any other shopping limitation. There was however, considerable concern about the inadequacy of provision in Calderwood although a chemist's shop is situated at the shopping centre in Calderwood Square. The limited number of people buying from chemists outside their own towns in East Kilbride and Glenrothes reflects the importance attached to the location of chemists near the residential areas.

The main differences in convenience goods shopping patterns are therefore found between the food products on one hand, and the chemist's goods on another. Further reference will be made to these at the end of the chapter.

2. DURABLE GOODS

Whereas convenience goods are normally bought fairly frequently durable goods such as clothing and furniture are usually bought spasmodically after a greater time spent in selection. Catherine Bauer found that selectivity varies with social status as well as the articles being bought, and selectivity could therefore act contrary to the factors of frequency and convenience (Bauer, 1950, p.192). Because durable goods are bought less frequently than convenience goods, their importance as regards neighbourhood interaction will be less, but this short survey will show the extent of any areal differentiation among the population, regarding the place of purchase of specific products - children's clothes, adults' clothes, footwear, hardware and furniture. Although the degree of selectivity affects the distance travelled it is also possible that it influences the frequency of purchase, as was found by J.F. Hayes in Coventry (Hayes, 1952). These products are likely to produce different shopping patterns.

Because clothes for young children who are growing quickly are needed more frequently than clothes for most adults, many parents do not wish to spend much time buying them, and tend to be more easily satisfied with what is available nearby. Nevertheless, personal choice and low prices are still significant. Normally adults' clothing demands greater selection, and as a result a greater concentration of such shopping takes place in the large centres and other places outside the New Towns. Like clothing, footwear requires selection and is bought fairly often, but not so frequently that convenience is necessarily the most important criterion in the choice of shops or shopping areas.

The term hardware can include a variety of articles which are not necessarily obtained from a hardware shop or ironmonger. Most people buy most household wares, cleaning materials and tools from various shops selling a wide range of products.

Furniture was included in the questionnaire as an example of a product that normally demands comparison shopping and has less importance attached to convenient access. The articles are usually both bulky and valuable so carrying them home on public transport is not common. As such purchases are only made occasionally, buyers are more often prepared to go further afield to find what they need. It was not anticipated that such articles would be found in local shopping centres, but there may have been some features worth further investigation if definite patterns occurred in the residential units. It was also thought that with so many people moving into new houses during the last few years the buying of furniture and carpets would be particularly relevant in the New Town context. However, many people had taken everything with them, some had not bought any furniture for fifty years, and others had inherited everything in the house, and had no need to buy furniture.

(a) WOODSIDE

Table 13.10 Shopping for durable goods by Woodside residents (Total households = 111)

	<u>Children's Clothes</u>	<u>Adults' Clothes</u>	<u>Footwear</u>	<u>Hardware</u>
Woodside	-	1	3*	3
Town centre	12	16	36	53
Traveller	-	-	-	3
Mail order	1	1	1	1
Kirkcaldy	53	58	55	32
Edinburgh	2	9	7	3
Elsewhere	14	26	8	12
Not applicable	29	-	1	4

* no longer a shop in the precinct.

(i) Children's Clothes Kirkcaldy is the most important centre for the purchase of children's clothes, and even more important than the town centre which is the main purchasing point of 11% of the households. The members of 60% of the households that shop outwith Glenrothes are dispersed throughout the precinct. They go as far away as Glasgow and Edinburgh as well as to closer settlements such as Markinch and Leven.

(ii) Adults' Clothes Altogether, to buy clothes, twelve different towns are visited by people in the Woodside sample, but again the most important is Kirkcaldy. More people go to the town centre for their own clothes than to Kirkcaldy. Twelve per cent of the households buy most of their clothes in Edinburgh and Glasgow in spite of the distance from Glenrothes. For buying adults' clothes no distinct differences in the choice of shopping area can be demarcated in the precinct.

(iii) Footwear The greater choice of shoes available was the chief reason given by the people in the households (50%) for going to Kirkcaldy for footwear. A few travel as far as Paisley and Dundee because they have found shops that stock their fittings. People who buy their shoes at the town centre are found throughout Woodside except in Alburne Park where all the interviewees gave the names of other centres.

(iv) Hardware Hardware is the only example among the selected products that is bought chiefly in the town centre rather than from Kirkcaldy. No marked differences in the places of buying hardware can be identified over the precinct.

... with towns where they lived ... have not been severed. Many people who ... in other parts of Wile continue to do most of their shopping in Kirkcaldy.

(iii) Footwear Whereas more people in ... for their shoes, rather than in the town centre, a larger proportion of South Parks residents ... near in the town centre. The explanation ... related to the length of time people have ...

(b) SOUTH PARKSTable 13.11 Shopping for durable goods by South Parks residents (Total households = 91)

	<u>Children's Clothes</u>	<u>Adults' Clothes</u>	<u>Footwear</u>	<u>Hardware</u>
South Street	-	-	-	1
Town centre	18	11	38	52
Mail order	1	1	1	-
Kirkcaldy	35	40	28	31
Edinburgh	3	6	1	-
Elsewhere	11	31	22	5
Not applicable	19	2	1	2

(i) Children's Clothes As no shops in South Street sell children's clothes, the majority of people rely on shops in Kirkcaldy and the town centre. Edinburgh, Glasgow and Perth are visited by a relatively small number of South Parks residents. No marked differences from one part of the precinct to another exist, for buying children's clothes.

(ii) Adults' Clothes As in Woodside, a large proportion of the residents in South Parks shop in Kirkcaldy for their clothes, and a relatively small number buy goods at the town centre. The locations of the precincts relative to the town centre seem to have little effect on the shopping for durable goods of this type. Glasgow, Markinch, Dundee, Perth, Dunfermline and other places are all visited by a number of people. Shopping for clothes by any one household is frequently spread among several towns. The great variety of places named by South Parks residents is partly because ties with towns where they lived until recently, have not been severed. Many people who previously lived in other parts of Fife continue to do much of their shopping in Kirkcaldy.

(iii) Footwear Whereas more people in Woodside go to Kirkcaldy for their shoes, rather than to the town centre, a bigger proportion of South Parks residents buy their footwear in the town centre. The explanation for this can be related to the length of time people have resided in

Glenrothes. Woodside was established before the town centre was started, but South Parks and the town centre have grown up together, so people have not formed the habit of going to another town.

More of those who buy shoes in the town centre live on the eastern side of the town, than are found in the west. As a corollary more in the west travel beyond Glenrothes for their footwear. The explanation given for the distribution of people buying convenience goods can be repeated. People in the west prefer to take the bus rather than walk as far as the town centre, and tend to feel that once they are in the bus the extra journey, particularly for durable goods is warranted.

(iv) Hardware Likewise, more hardware is purchased at the town centre than in Kirkcaldy, although both are important. However, no obvious variation from one part of the precinct to another in the distribution of people buying hardware from specific areas, appears to exist.

(c) CALDERWOOD

Table 13.12 Shopping for durable goods by Calderwood residents (Total households = 376)

	Children's Clothes	Adults' Clothes	<u>Footwear</u>	<u>Hardware</u>
Calderwood	4	1	-	95
Town centre	31	37	102	118
Mail order or traveller	8	7	5	1
East Mains Neighbourhood	3	3	11	25
East Kilbride (excluding Calderwood) and elsewhere	6	11	15	7
Glasgow	207	303	230	119
Elsewhere	12	12	11	8
Not applicable	105	2	2	3

(i) Children's Clothes Eighty per cent of those people who buy children's clothes (that is, 58% of the households) go beyond East Kilbride. This is mainly because neither the

neighbourhood centre nor the town centre provides the variety that is needed. The lack of a Marks and Spencer in the town was a reason given repeatedly, for going to Glasgow. Shopping for children's clothes does not at the moment contribute to the self-containment of the town nor the residential unit. Within Calderwood itself no marked pattern characterizes the distribution of shoppers, but because of the larger number of young families in the eastern part of the neighbourhood unit, a higher proportion of the households look to Glasgow for this kind of purchase.

(ii) Adults' Clothes For adults' clothing 81% of the Calderwood households go mainly to Glasgow, and another 3% visit other towns in various parts of Scotland, but chiefly in North-west Lanarkshire to places like Hamilton, Bellshill and Motherwell. Several reasons were suggested for the reliance on Glasgow. Familiarity with the shops, lower prices for the same articles, proximity to work place, and greater opportunities to buy fashionable garments in Glasgow were some of the important features mentioned by interviewees. Some men said that although they can obtain what they need in East Kilbride, they also prefer to shop in Glasgow.

In no way do these shopping habits show any variation from one part of Calderwood to another.

(iii) Footwear Shopping for footwear also shows a marked dependence on Glasgow. Similar reasons were given - the greater choice available, the familiarity with shops, and the possibility of lower prices. No areal differences within Calderwood, according to where people buy footwear, are found.

(iv) Hardware Calderwood is the only residential unit, among those studied, that has a hardware store in the shopping centre, although hardware is often available from different outlets in the other units. In spite of its location in the unit only 25% of the households go there for most of their hardware, while about 31% go to the town centre and a similar percentage to Glasgow. The shop in Calderwood Square is patronized more by people living in the central part of the unit than by households in the

other parts. The proportion of customers decreases towards the periphery in the north-east and the south-west. A cluster of households buying hardware in the old village lives in the area around the south-western end of Maxwellton Avenue, but others are scattered throughout the unit. Those who go to Glasgow and elsewhere, are grouped particularly in the north-eastern developments, the extreme south-west and the area around Stobo and Tannahill Drive. These variations are similar to those found for the purchase of convenience goods.

(d) CRAIGSHILL

Table 13.13 Shopping for durable goods by Craigshill residents (Total households - 146)

	Children's Clothes	Adults' Clothes	Footwear	Hardware
Craigshill	-	-	-	7
Mail order or traveller	5	3	2	5
Bathgate	23	22	34	56
Edinburgh	47	77	66	48
Bathgate and Edinburgh	7	10	9	-
Glasgow	8	15	9	4
Broxburn	5	2	5	9
Several of the towns named above	-	5	15	-
Elsewhere	11	12	6	13
Not applicable	40	-	-	4

(i) Children's Clothes All people in Craigshill, except the few who buy garments through a mail order firm, must leave the district to buy children's clothes. Edinburgh is the most frequented centre because it provides a better variety and price range than other nearby places. Several people return to areas of previous residence for these articles, especially when making trips to visit children's grandparents. It seems quite common for grandparents to assist in the purchase of children's clothes, hence the widespread location of buying points in such places as Wishaw, Coatbridge, Broxburn and Carlisle.

(ii) Adults' Clothes Table 13.13 shows the importance of Edinburgh, Bathgate and Glasgow for buying adults' clothes. In particular, the people who formerly lived near Edinburgh return to the city for this type of shopping. Those who shop elsewhere go as far away as Dunfermline, Perth and England, but invariably shopping for clothes is done during trips to visit relatives. No differences exist in these shopping habits from one cell to another in Craigshill.

(iii) Footwear Shopping for footwear by Craigshill residents shows characteristics similar to shopping for adults' clothes. Edinburgh is the most important centre again, but Bathgate is visited more for shoes than for other articles of clothing. It is significant that in this district where no shoe shops are nearby, the husbands and wives of a family often buy their shoes in different towns, the location depending much more on their place of work than on their place of residence.

(iv) Hardware Only 8% of the Craigshill households rely on the local supermarkets and travelling salesmen for the purchase of most of their hardware. Another 3% go to Pumpherston to buy hardware. Altogether 71% of the households find it necessary to go as far as Bathgate and Edinburgh to satisfy their needs.

(ii) Adults' Clothes The half dozen people in the sample who buy clothes through the local co-operative store are all older people who have lived in Livingston Station for many years, and make very few purchases. They live in the northern part of the district. Otherwise, the majority of people travel to other towns to buy clothes, the choice of town bearing no relationship to the area of residence within the district.

(iii) Footwear Most footwear is bought in Edinburgh, Bathgate and several small towns located between these two centres. Few travel as far as Glasgow and Falkirk for this purpose. In this respect no difference can be discerned between one part of the district and the other.

(e) DEANSTable 13.14 Shopping for durable goods by Deans residents
(Total households = 74)

	<u>Children's Clothes</u>	<u>Adults' Clothes</u>	<u>Footwear</u>	<u>Hardware</u>
Livingston Station	-	6	12	10
Mail order or traveller	3	2	1	2
Bathgate	12	16	32	43
Edinburgh	16	30	18	8
Bathgate and Edinburgh	-	9	4	2
Glasgow	-	2	-	2
Several of the towns named above	-	5	4	1
Elsewhere	9	2	3	3
Not applicable	34	-	-	3

(i) Children's Clothes Children's clothes are bought by only 54% of the households, the majority of which go outside Deans for their purchases. Because of the higher child population in Deans South than in the north, more people leave Deans South to buy children's clothes. Edinburgh is chosen in preference to other nearby towns for the same reasons given by Craigshill residents. However, because Bathgate is closer to this district and trips for other shopping are frequently made, a higher proportion of those buying children's clothes visit shops there.

(ii) Adults' Clothes The half dozen people in the sample who buy clothes through the local co-operative store are all older people who have lived in Livingston Station for many years, and make very few purchases. They live in the northern part of the district. Otherwise, the majority of people travel to other towns to buy clothes, the choice of town bearing no relationship to the area of residence within the district.

(iii) Footwear Most footwear is bought in Edinburgh, Bathgate and several small towns located between these two centres. Few travel as far as Glasgow and Falkirk for this purpose. In this respect no difference can be discerned between one part of the district and the other.

(iv) Hardware The small number of households in the Deans sample that obtain their hardware locally are all found only in the northern part of the district. These are the people who have lived in the district longer, and as with other products they appear to tolerate the limited choice available because it is convenient. The majority have not known anything different as they have lived in the vicinity for much of their lives. For pensioners, the expense of going further, and the effort required to go even as far as Bathgate, minimizes the amount of shopping done beyond Livingston Station. People who buy hardware in other centres are found throughout all parts of the district.

(f) SUMMARY

	Wood- side	South Parks	Calder- wood	Craigs- hill	Deans
<u>Table 13.15</u> Shopping for children's clothes in the residential units (Percentage of households)					
	Wood- side	South Parks	Calder- wood	Craigs- hill	Deans
Within the unit	-	-	1.1	-	-
Mail order or traveller	0.9	1.1	2.1	3.4	4.1
Within the unit and beyond	1.8	11.0	1.6	-	-
Town centre	10.8	19.8	8.2	-	-
Other unit	-	-	0.8	-	-
Elsewhere	60.4	47.3	58.2	69.2	50.0
Not applicable	26.1	20.9	27.9	27.4	45.9

Nowhere in the areas studied is there reliance on local shops for buying children's clothes. One outstanding feature is the way that Glenrothes residents rely much more on the town centre than the people in Calderwood. The direct road, and the frequent bus services from Calderwood to Glasgow make the city close enough in time and distance to draw a large proportion of the population there. The greater distance, higher fares, tolls on the Forth Road Bridge and the proximity of Kirkcaldy do not make Edinburgh as attractive to Glenrothes residents. Kirkcaldy is adequate for most people's needs, but is less frequently

visited for buying children's clothes by people in South Parks than in Woodside. The difference in distance is only part of the explanation for this. The time of development of the town centre relative to the settlement of the precincts, and the public transport system are just as significant. Although Bathgate is near Craigshill the same difficulties do not prevent Livingston residents from visiting Edinburgh frequently. In addition the convenience of an hourly bus service makes more frequent shopping trips to Edinburgh possible.

Table 13.16 Shopping for adults' clothes in the residential units (Percentage of households)

	<u>Wood- side</u>	<u>South Parks</u>	<u>Calder- wood</u>	<u>Craigs- hill</u>	<u>Deans</u>
Within the unit	0.9	-	0.3	-	8.1
Mail order or traveller	0.9	1.1	1.9	2.1	5.5
Within the unit and beyond	2.7	4.4	2.9	-	-
Town centre	14.4	12.1	9.8	-	-
Other unit	-	-	0.8	-	-
Elsewhere	80.2	80.2	83.8	97.9	86.5
Not applicable	0.9	2.2	0.5	-	-

The residential units rely more heavily on the nearby main centres - Glasgow, Edinburgh, Kirkcaldy - for the purchase of adults' clothing, than they do for children's clothing. Many people travel further in order to buy clothes, than for any other articles. Thus, it is not uncommon to find Livingston residents travelling to Glasgow or from Glenrothes to Edinburgh.

The East Kilbride town centre is the most fully developed of all the Scottish New Towns for shopping facilities and in addition, it has branches of Glasgow stores. Yet, in spite of this, many interviewees maintained that the familiarity of Glasgow gives them more pleasure than the town centre when shopping for goods that require comparison shopping.

Although these figures (Table 13.16) show that over 80% of the households in all the units leave the town for buying adults' clothes, and over 90% (except in Deans) leave their own residential unit, it must be remembered that shopping for clothes and other durables is not done as frequently as shopping for food. Consequently, any effect on neighbourhood cohesion and the concept of self-containment is likely to be less.

Table 13.17 Shopping for footwear in the residential units
(Percentage of households)

	<u>Wood- side</u>	<u>South Parks</u>	<u>Calder- wood</u>	<u>Craigs- hill</u>	<u>Deans</u>
Within the unit	2.7*	-	-	-	16.2
Mail order or traveller	0.9	1.1	1.4	1.4	1.4
Within the unit and beyond	0.9	7.7	4.0	-	-
Town centre	32.4	41.8	27.1	-	-
Other unit	-	-	2.9	-	-
Elsewhere	62.2	48.4	64.1	98.6	82.4
Not applicable	0.9	1.1	0.5	-	-

Deans is the only residential unit where it is possible to buy shoes, so in most residential units the purchase of footwear is necessarily beyond the unit, usually in the town centre or another town. Although footwear is not normally bought frequently, the necessity of going elsewhere detracts from any form of self-containment that the residential unit might have. In Glenrothes and Calderwood the town centre is visited by people living in all parts of the units, but nearby towns are visited by more than half of the households. A big proportion of the people in Craigshill go to Edinburgh, but Bathgate is the centre to which more go from Deans. As for other durable goods, more customers from Calderwood are attracted to Glasgow than to any of the settlements closer at hand. However, the pull of these central places is not so great for the purchase

* A shoe shop no longer exists in the precinct.

of hardware products. In Woodside, households go to the town centre less frequently than Kirkcaldy, but the reverse

Table 13.18 Shopping for hardware in the residential units
(Percentage of households)

	<u>Wood- side</u>	<u>South Parks</u>	<u>Calder- wood</u>	<u>Craigs- hill</u>	<u>Deans</u>
Within the unit	2.7	1.1	25.3	4.8	13.5
Mail order or traveller	3.6	-	0.3	3.4	2.7
Within the unit and beyond	1.8	1.1	1.9	-	-
Town centre	47.7	57.1	31.4	-	-
Other unit	-	-	6.6	-	-
Elsewhere	40.5	38.5	33.8	89.0	79.7
Not applicable	3.6	2.2	0.8	2.7	4.1

The difference in shopping patterns from one town to another for hardware purchases is primarily due to the varying location of facilities. Hence a marked contrast exists between Calderwood which has a hardware shop in the local shopping centre, and Craigshill in which any hardware obtained locally must be bought at the small supermarket corner stores in the cells. Even where hardware shops exist in the New Towns, up to two-fifths of the population prefer to go elsewhere to ensure a greater choice of products.

Table 13.19 Shopping for furniture in the residential units
(Percentage of households)

	<u>Wood- side</u>	<u>South Parks</u>	<u>Calder- wood</u>	<u>Craigs- hill</u>	<u>Deans</u>
Within the unit	-	-	0.3	-	4.1
Within the unit and beyond	-	1.1	2.9	-	-
Town centre	27.0	37.4	26.6	-	-
Other unit	-	-	0.8	-	-
Elsewhere	63.1	56.0	65.7	93.8	90.5
Not applicable	9.9	5.5	3.7	6.2	5.4

For buying furniture, households in Woodside go to the town centre less frequently than Kirkcaldy, but the reverse is true of the people in South Parks. From Woodside 27% of the households go to the town centre and 42% to Kirkcaldy, while the figures for South Parks are 37% and 33% respectively. A shop in Markinch has the custom of 7% of the Woodside households but only 1% in South Parks. Its proximity to Woodside before the town centre was established is the main explanation of the difference between the precincts. Just as many people go to Glasgow from Woodside (4%) as go to Edinburgh. In Glasgow furniture is available at wholesale prices and the interviewees considered the lower prices made the journey worthwhile for any large items. This reason for buying furniture in Glasgow was also given by residents in the other New Towns. A few people buy furniture where they lived previously so that they can match it and this particularly applies to people who have lived in Fife at places like Methil, Buckhaven, Markinch, Leven, Cupar and Dunfermline.

The Calderwood residents make less use of the town centre than those in Glenrothes although similar provision exists. Again the domination of Glasgow is evident. People travel over a wider area for furniture than other products but mostly to places within the Glasgow conurbation and North-west Lanarkshire. Little difference in these buying habits from one part of the neighbourhood unit to another can be discerned except the south-west and the Tannahill Drive - Stobo area where people buy almost exclusively from places beyond East Kilbride.

With no shops in Livingston selling furniture at the time of the survey, everyone in Craigshill travelled elsewhere, chiefly to Edinburgh (45%), Bathgate (24%), Glasgow (8%) and Broxburn (6%). A few still travel to their previous places of residence such as Perth, Dundee and Wishaw.

Four per cent of the people in Deans said they buy furniture in Livingston Station, but this is done by ordering from a catalogue at a store. From Deans 32% of the people go to Edinburgh, 41% to Bathgate and 11% to Glasgow.

when they are buying furniture. The remainder share their furniture buying among these places or go to smaller townships nearby.

In spite of the earlier assumption that most people would be prepared to go well beyond the New Towns for furniture it is worth observing that in the two towns which at present have town centres more people buy furniture within the town than buy clothes which demand more frequent shopping. In fact the pattern of shopping for furniture is more like that of shopping for footwear. From the point of view of self-containment neither has much part to play if the number shopping outside the New Towns is an indication.

3. SUMMARY OF SHOPPING PATTERNS

The differences in shopping patterns from one part of a residential unit to another hinge mainly on (a) the location of shops within the unit and the proximity of alternative shops, (b) the routes taken by buses within the unit to the town centre and elsewhere, (c) variations in car ownership from one part of a unit to another, (d) the plan of the roads and footpaths in relation to local shops and to other centres, (e) differences in age groups and length of settlement, (f) the social awareness of the residents and the proximity of "status" shopping areas. The order of importance of these factors varies with the nature of the shopping.

The differences between one part of a unit and another are much clearer in the patterns of shopping for convenience goods whereas differences between the units are clearer in the survey of durable goods.

In Woodside the area to the north (north of Bighty Park and the path to Woodside Way) and the eastern periphery, and the small south-west section around Well Road look more to the town centre than does the rest of the precinct. In the north and east 49% of the households do none of their major shopping for groceries, green groceries or meat in the precinct. In the south-west the figure is 86%. Some of these people buy chemist's goods in Woodside. Only 18%

of the people in the remaining area do as little of their shopping at local stores. It is significant that these houses in the north, east and south-west have been built more recently than the more central area, although this does not indicate a cause-and-effect relationship. A greater influence has been the path that leads directly to the town centre from the north and the manner in which Woodside Road leads to the town centre from the south-west. Elsewhere roads lead more directly to the local shopping facilities. In the rest of the precinct any division is between the area west of and including Woodside Way, and the area to the east of the precinct where people more often go to Bighty Avenue. However the existence of a co-operative butcher and grocer in Bighty Avenue, and of a hairdresser, library and bank in Woodside Way encourages the use of both groups of shops by some people throughout the precinct.

The main differences in shopping patterns in South Parks are found between the east and the west. On the whole more people shopping at the nearby shops in South Street live on the eastern side of the precinct, although the limitations of these shops encourages much use of mobile shops and the town centre. Both the town centre and South Street are more easily reached on foot by those in the east, but South Street is used more for the purchase of standardised goods when selection is of secondary importance. Chemist's goods are the only articles on the list, for which the majority of people shop locally. Those who live on the west of the precinct are far enough away to hesitate about walking to the shops, and particularly during poor weather. This is one reason for the greater use of mobile shops in the north and west, especially for meat. By taking a bus, South Parks residents are quickly to the town centre or even Kirkcaldy. Hence, this also partly explains the larger proportion going from the west to Kirkcaldy for much of their shopping.

Some of the main influences on the shopping patterns in Calderwood are the distance to the neighbourhood shopping centre, the distance to the town centre, the cost of transport and the frequency of buses to Glasgow. The greater

area of Calderwood makes these factors more significant than in smaller units. The south-west which is about the same distance from the town centre, the old village and Calderwood Square, is oriented towards the town centre and the village for shopping, rather than shops within the unit although Calderwood Road leads in both directions. Shopping in the old village seems to have a certain status about it, and it appears that convenience is not the only thing that is taken into consideration by those who choose to shop there. In particular, some of the older residents prefer to shop in the old village because they have done so since before the building of the New Town. Other people in the south-west make more use of the Maxwellton Avenue shops than Calderwood Square. In the extreme south-west of Calderwood, that is, south-west of Semphill Gardens, very little shopping of any kind is done in the neighbourhood unit.

The people in the east of Calderwood are about a mile from the neighbourhood shops and particularly those with young children consider this distance is too far to walk regularly, and especially in bad weather. The buses along Maxwellton Road serve this part with bus routes leading to the town centre and Glasgow. Although the buses pass the neighbourhood shops the extra penny on the fare to the town centre is warranted for those who seek more variety and the opportunity to shop at chain stores where there are sometimes price reductions. The chemist in Calderwood Square is the only shop that people in this eastern part rely on to a great extent. The people in the central part of Calderwood between Maxwellton School and Struthers Crescent - Buchandyke Road are so near to the neighbourhood centre that for many convenience goods it is not worth their while travelling further.

It is more difficult to identify differences between one part of Craigshill and another with particular reference to shopping because so much is bought from vans. One of the significant features appears to be the distance to Pumpherston. More people from Craigshill East go there than from the cells further away. People in the cells further away often go to Bathgate for groceries, meat and

vegetables. For chemist's products more people in Almond West, the cell where the chemist has his shop, use the local chemist than those in other cells. The people in the sample in Almond South do nearly all their shopping outside Livingston because it is more convenient to go elsewhere than walk by a meandering route to one of the other cells.

The most obvious factors affecting shopping patterns in Deans are the length of residence in Livingston Station and the ages of the inhabitants. The older residents are in the north and they shop locally much more than the people in Deans South who are younger and more mobile. The greater car ownership and the earlier backgrounds of the residents who in many cases have come from larger centres with more variety of shops, help to explain why a larger proportion of the population go from Deans South to Bathgate for their convenience goods. For most durable goods it is necessary for the majority of people in Deans to go elsewhere.

The patterns in shopping for durables show much more commonly than for consumer goods, no significant differences between one part of a residential unit and another. With comparison shopping and less frequent purchases the decision where to go is based partly on the choice available, the degree of standardisation and the weight and volume of the articles, but such influences as the location of the person's previous home and the accessibility of familiar shops, the level of car ownership, price ranges, places of work and the attraction of nearby cities are all important. The results of the interplay of these factors are seen in the Scottish New Towns. Although higher proportions of residents in Calderwood and Woodside shop locally than in the other residential units the importance of Glasgow and Kirkcaldy is markedly significant. South Parks is more reliant on the town centre than any other unit, partly because of the limitations of nearby shops and partly because of the relative proximity to the town centre and the distance to Kirkcaldy. Woodside was established well before the town centre was built so many people formed the

habit of going to Kirkcaldy, whereas South Parks grew up about the same time as the town centre and attachments were not so readily formed with other towns. Although Livingston is closer to Bathgate than to Edinburgh the orientation of Craigshill residents is much more towards Edinburgh than those in Deans. This is partly the result of Livingston Station's location within the unland of Bathgate well before the New Town was commenced and partly because of the differences in the origins of the immigrants.

The survey has shown that two major factors influence the spatial distribution of people buying durable goods. If a shop stocking a particular product is located in the residential unit more variation is likely than where there are none. The only hardware shop in the units studied is in Calderwood, and for hardware buying a threefold division exists similar to that found in Calderwood for certain consumer goods. In Glenrothes, as a contrast, there is no spatial variation, the population throughout all parts of the precincts going to either the town centre or Kirkcaldy. The second factor operates when a specific product is necessary for only one section of the population. Hence because more children live in some parts of Calderwood and Deans than in others, for the purchase of children's clothes more people in those parts with the larger child population go to Glasgow or the town centre from Calderwood, and to Edinburgh and Bathgate from Deans, than from other parts of these residential units.

Do shops or shopping centres as they are in these residential units, alone provide a focal point or add to the community spirit of the entire unit? Table 13.20 summarises the number of households doing most of their shopping at outlets within the units.

Shopping facilities obviously are considered as important by the residents when one looks at the number of remarks referring to them in answer to the question about the advantages and disadvantages of the New Towns (Appendix 4). In all units except Woodside more comments were made about their disadvantages than about any other single feature of

Table 13.20 Percentages of households obtaining most purchases from shops within residential units

	<u>Wood- side</u>	<u>South Parks</u>	<u>Calder- wood</u>	<u>Craigs- hill</u>	<u>Deans</u>
Groceries	48.6	9.8	39.1	16.4	50
Green Groceries	27.9	8.8	42.6	15.1	9.5
Meat	33.3	9.9	39.1	-	5.4
Chemist's Goods	79.3	58.2	58.2	37.0	-
Children's Clothes	-	-	1.1	-	-
Adults' Clothes	0.9	-	0.3	-	8.1
Footwear	2.7*	-	-	-	16.2
Hardware	2.7	1.1	25.3	4.8	13.5
Furniture	-	-	0.3	-	4.1

Because two groups of shops are located in both Calderwood and Woodside there tends to be some division within the units concerned. In South Parks, Craigshill and Deans most people shop from vans or go away from the unit. Furthermore Calderwood and Woodside seem too large to be conducive to overall neighbourhood unity. The shopping centres appear to serve, in particular, those who live within about quarter of a mile of them. Beyond that more intensive use is made of vans or else people go away from the unit. Although shopping from a van indicates that the residents remain within the unit any contacts they make in this way are chiefly with others living within a hundred yards. This does not help the cohesiveness of the neighbourhood unit as a whole. The shopping centres chosen outside the residential units (except in the case of Craigshill residents using Pumpherston) are normally too big to have much effect on the interaction of residents from individual units.

Shopping facilities obviously are considered as important by the residents when one looks at the number of remarks referring to them in answer to the question about the advantages and disadvantages of the New Towns (Appendix 4). In all units except Woodside more comments were made about their disadvantages than about any other single feature of

* No longer possible.

the town. Most of the discussion centred around particular facilities such as the paucity of chemists, the distance to shops and the expense of products.

In conclusion, it appears that although the provision of shopping facilities is important to the local inhabitants, and adds to the self-containment of the unit, by itself it has a relatively small part to play in the establishment of cohesion within the units when so much shopping is done elsewhere.

THE USE OF SERVICE FACILITIES

The impact of service facilities on neighbourhood consciousness is likely to be determined partly by how necessary they are in the corporate life of the community, but more, by the frequency of their use. Not every one of the six services - banks, doctors, dentists, shoe repairers, ladies' hairdressers and libraries - chosen for the purpose of the interview, is utilised by the whole population, but these services give an indication of some of the habits of the people living in the New Towns.

Some banking business is done at a post office rather than at a trading bank, and a small number of people in the New Towns bank money through schemes at work or at co-operative shops. All places used for this type of business were included in the survey. When branches of banks in several towns were named by one household, they usually included one near the place of work and another near the home.

Visiting a general practitioner is not, for most people, a regular feature of their life, although if everyone in a household is taken into account, several visits per household might be made during a year. Members of a household sometimes visit different doctors, but more frequently, one doctor treats all members of a family. A few of the interviewees chose their doctor on the basis of a recommendation, but more often, a doctor with a surgery nearby was selected, especially when there were young children in the family.

Visits to the dentist are not approached by all people with equanimity, and this particularly affects the willingness of older people to change to a different dentist. However, a dentist near the home or in the vicinity of the work place is normally chosen if convenience is the important factor. Most people do not usually go to a dentist more than once in six months, so the location is likely to have no more than a limited effect on neighbourhood consciousness but its location in a unit adds to the self-containment of the unit. Most children in the New Towns have treatment at school dental clinics.

In an age when composition soles and plastic materials have become common, fewer people trouble about having shoes repaired, than formerly. Several interviewees considered that once the soles of shoes are worn they are no longer worth mending. Very few carry out repairs at home. Hence, for some households this question was not applicable.

Ladies' hairdressing is one of the services which can either be carried out in a client's home or in a hairdressing salon. In the New Towns, a few hairdressers who go from one house to another are particularly in demand by mothers of young children and people who are immobile. Also, it is common to find groups of friends call to do each other's hair.

Like many other services provided in the community, libraries are not used by everyone. The survey was limited to the use of public libraries whether in permanent or temporary premises, or mobile, and excluded libraries in schools, universities, colleges, clubs, or at work places unless they have sections open for the use of the general public. A household has been counted if anyone in the household goes to a library irrespective of the frequency of the trips.

A discussion of the use of all these facilities in the residential units will serve to illustrate their varying importance.

and Glenrothes work from a group practice in Coe Lane between Auchmuty and Woodside. This is the

* Facilities no longer exist in the precinct.

(a) WOODSIDETable 13.21 Use of services by Woodside residents (Total households = 111)

	<u>Bank</u>	<u>Doctor</u>	<u>Dentist</u>	<u>Shoe Repairer</u>	<u>Ladies' hair- dresser</u>	<u>Library</u>
Woodside	39	-	-	8*	47	64
Home	-	-	-	-	5	-
Town centre	53	-	68	53	33	-
Woodside and elsewhere	-	-	-	-	1	1
Other unit	-	88	-	-	1	1
Glenrothes (ex- cluding Wood- side), and elsewhere	-	3	2	-	-	-
Kirkcaldy	5	-	13	7	6	2
Elsewhere	8	20	15	32	10	3
Not applicable	6	-	13	11	8	41

(i) Banks In the central area of Woodside, both east and west of Woodside Way, half of the people use the local bank, whereas in the north and east of the precinct only 24% of the households use this facility and in the south-west the figure (10%) is even lower. A bank at the town centre is used by people living in all parts of the precinct and particularly by people in the north and south-west. Only 12% of the households make use of banks in other towns, and these households are scattered throughout the precinct with a slightly higher proportion in the north and south-west than in the central area. A bank in Markinch is used by households (4%) that have been living in Woodside for a long time, and those who go to banks in Cupar, Lochgelly, and Leven, formerly lived in those places.

(ii) Doctors The general practitioners serving the East Neighbourhood and Glenrothes work from a group practice in Cos Lane between Auchmuty and Woodside. This is the

* Facilities no longer exist in the precinct.

nearest surgery and is attended by 78% of the Woodside households. Most of those who go to Markinch (10%) and Leslie (6%) are people who have lived in Glenrothes for more than eight years, and at the time of their arrival, registered with the doctors who were nearby. Since then they have continued to go to the same places. A small number have continued as patients at their previous homes in spite of being in Glenrothes for a number of years.

(iii) Dentists People going to the dentist in the town centre are found throughout the precinct, but with a higher proportion to the east of Woodside Way than to the west. Most of those who visit a dentist outwith Glenrothes live in the south and west of Woodside. Those who go to Markinch are mainly folk who have lived in the town or its environs for several years and attended the dentist there before any practice had been set up in Glenrothes. For the same reason a number of people continue to go to Kirkcaldy.

(iv) Shoe Repairers Previously shoes needing repair could be left at the shoe shop in the Woodside shopping area, but now they must be taken beyond the precinct. Twenty-four per cent of the households have shoes repaired in Thornton, a large proportion when the town is not visited by many Woodside residents for any other reason. The chief explanation given was that the very much lower prices make the journey worthwhile. The buses on the route to Kirkcaldy pass Thornton so that transport is not a problem. The people who go to Markinch (3%) have been in the town for many years and have not broken the habit of taking shoes needing repairs there.

(v) Ladies' Hairdressers Women who patronize the hairdresser in the town centre, tend to be found more in the north, the central area east of Woodside Way, and the extreme south-west of the precinct. Most women in the remaining part of Woodside go either to the local hairdresser or beyond Glenrothes. These areal variations are not very distinct, but recognizable.

(vi) Libraries A small county library with a limited selection of books is located at the Woodside Way shopping

centre, and this is used by at least one person in 59% of the households in Woodside. These households are found in all parts of the precinct. Although the library attracts more people to this area than any other single facility, too much importance cannot be attached to this figure because many borrowers visit the library only infrequently.

(b) SOUTH PARKS

Table 13.22 Use of services by South Parks residents
(Total households = 91)

	<u>Bank</u>	<u>Doctor</u>	<u>Dentist</u>	<u>Shoe Repairer</u>	<u>Ladies' hair- dresser</u>	<u>Library</u>
South Parks	-	65	-	-	32	-
Home	-	-	-	-	9	-
Mobile service	-	-	-	16	-	-
Town centre	72	-	75	51	27	-
South Parks and elsewhere	-	1	-	-	-	-
Other unit	-	15	-	-	-	42
Glenrothes (ex- cluding South Parks), and elsewhere	-	-	3	1	-	2
Markinch	2	3	2	3	2	-
Kirkcaldy	3	-	2	4	9	3
Elsewhere	5	7	5	6	10	-
Not applicable	9	-	4	10	2	44

(i) Banks A few families use banking facilities provided by the firm for which they work as well as at the town centre. Those people who use banks in Kirkcaldy also work there, and those few who go to banks in Markinch, Kennoway, Leslie, Lochgelly and Milnathort, have previously lived in those settlements. Differences between one part of South Parks and another are not great.

(ii) Doctors Compared with Woodside, a greater proportion of people in South Parks leave their neighbourhood unit to see doctors in another part of the town. Although 71% of

the households are registered with a local doctor in Scott Road 16% consult a doctor in another precinct. Over half of this group previously lived in either Auchmuty or Woodside, and the others moved to Glenrothes before the establishment of the practice in South Parks. As the eastern side of South Parks was built first, more people attending a doctor outside the precinct are found there than in other parts of the precinct. Those who attend doctors in Leslie (8%) and Markinch (3%) were also living in Glenrothes before the group practice was set up.

(iii) Dentists The dentist in the town centre is visited by people in 86% of the households. This population is found in all parts of the precinct. Among those who go outside Glenrothes no-one lives in the north part of the precinct which is also the newest part. The main reason is probably that the dentist in the town centre was already established when they came to the area. It has already been shown that the northern part of South Parks has more people from outside Fife than the rest of the precinct, so there is less likelihood of their returning to a dentist elsewhere.

(iv) Shoe Repairers In spite of its reputation, Thornton does not attract the same proportion of people in South Parks as in Woodside. There is not the same orientation along the A92 road from South Parks and the extra fares barely make the trip worthwhile, although the few who go, consider it is less expensive than elsewhere.

In the north and west of the precinct people tend to take their shoes to the town centre, while in the east of the precinct more people utilize the delivery service. It is normally people who have lived in the vicinity for many years that take shoes to Markinch for repair.

(v) Ladies' Hairdressers Clients of the hairdresser in South Street live in all parts of the precinct and account for 35% of the households in South Parks. More women have hairdressers going to their homes in the eastern part of the precinct than in the west. Also more in the east go to a hairdresser in Leslie. This latter group have lived

in South Parks for four years or more and were therefore living in the precinct before a local salon was established. Of those who go to the town centre, a greater proportion live in the west of the precinct than in the east. This repeats a pattern that has appeared previously, regarding the use of the town centre.

(vi) Libraries Several interviewees were unaware of the existence of a library in Auchmuty, and others said they are deterred from using it because of the distance from their homes. The nearest library is at Warout School about 600 yards from the south-east of the South Parks precinct. The relatively remote location away from the main road and away from a shopping centre is a more feasible explanation for the difference in membership of libraries between Woodside and South Parks residents. Nor does the absolute distance appear to be of importance, as a higher proportion of people in the north and west of the precinct use the library than in the east.

(c) CALDERWOOD

Table 13.23 Use of services by Calderwood residents
(Total households = 376)

	<u>Bank</u>	<u>Doctor</u>	<u>Dentist</u>	<u>Shoe Repairer</u>	<u>Ladies' hair- dresser</u>	<u>Library</u>
Calderwood	3	220	226	132	121	184
Home					43	
Mobile service				34		
Town centre	238	59	9	83	94	60
Calderwood and elsewhere		4	3	2	6	25
East Mains	45	55	63	10	24	-
Other units		10	1	-	4	1
East Kilbride (excluding Calderwood), and elsewhere	14	-	7	2	4	-
Glasgow	37	7	31	31	63	4
Elsewhere	15	20	11	3	14	1
Not applicable	24	1	25	79	3	101

(i) Banks No branch exists in Calderwood so the Post Office is the only place handling this type of business. Nearly all those who have accounts at branches outside the town, make use of facilities at or near their work or near their former homes in North-west Lanarkshire and the Glasgow conurbation. These people live scattered throughout the neighbourhood unit.

Most people use banks at the town centre. People with accounts in the old village (14%) deal with banks that had no branches in the town centre at the time they moved to East Kilbride. As a result more of these people live in the west rather than the newer eastern part of the neighbourhood unit. Since the settlement of the western part, more branches have been established in the town centre. Hence newcomers to the eastern part of Calderwood have arranged for accounts to be transferred directly to the town centre.

(ii) Doctors Sixty per cent of the households in Calderwood are registered with doctors in the neighbourhood unit. The south-west of the unit has the lowest proportion of households attending doctors with practices in the unit. Forty-six per cent visit doctors in Calderwood Square while approximately 14% see doctors in Mowbray, north-east of the town centre. These people live mainly in the north-east part of the town. A smaller proportion of people in the central part of the neighbourhood unit than in the east and west, consult doctors in the town centre, but the distribution of those attending doctors in other neighbourhood units is fairly even. Reasons given for crossing the town to The Murray are that some Calderwood residents previously lived in The Murray, some went there on the recommendation of others, and the rest continued as patients of a doctor who moved there from another part of East Kilbride.

All those who visit doctors in Glasgow were formerly resident in the city and have not registered with another practitioner although they have been away from Glasgow for as long as eight years. When doctors from East Kilbride transferred their practices to Clarkston and Blantyre some patients remained registered with them. Hence, the

movements of the general practitioners rather than the initial choice of the patients have determined the location of surgeries visited by some Calderwood residents. Of those who go beyond the town for medical treatment, several are found in the west, particularly in the three oldest building developments. These people arrived before doctors had set up practices in either Calderwood or the town centre. For some residents north-west of Maxwellton Road and Maxwellton Avenue, it was simpler to take a bus to Glasgow than to walk to the old village.

(iii) Dentists Apart from the clinics visited by school children, people in 62% of the households visit a dentist in Calderwood Square, 19% go to another neighbourhood unit, and 2% go to the town centre. The distribution of households visiting the various dentists is related to the stage in the town's development when the dentists set up their practices. Most of those who go to The Village have been patients there for several years, so this accounts for the slightly higher proportion of these people in the older parts of the neighbourhood unit in the west. The dentist in Calderwood Square has more recently established his practice. A few households in the south-west of the unit find it more convenient to go to a dentist in either The Village or the town centre. More of the people visiting the dentist in the town centre live in the north-east of the unit than elsewhere. The settlement of this part coincides with the recent establishment of a dental surgery at the centre.

(iv) Shoe Repairers The places to which footwear is taken for repair in Calderwood give a similar pattern to that established for shopping for convenience goods. The workshop is in Pollock Lane, behind and to the west of the shopping centre. A markedly higher proportion of the households in the central part of Calderwood take shoes to this cobbler, and only a small percentage use the delivery service. A much larger proportion of those taking footwear to be repaired in the town centre and in other neighbourhood units live in the east and south-west of Calderwood and in Stobo. Several people in Tannahill Drive and its vicinity, as well as others scattered through the unit, take shoes to Glasgow.

(v) Ladies' Hairdressers Hairdressers are located in both Calderwood Square and Maxwellton Avenue. The former has clients from 14% of the households, and the latter from 17%. Most of the people who visit a Calderwood hairdresser are in the western part of the neighbourhood unit, that is, west of Long Calderwood School and Buchandyke Road, but excluding the extreme south-west. Relatively few are found scattered through the more easterly part. A higher proportion of those going to the town centre are found in the eastern part. A cluster of households going to the hairdresser in the old village live south of Semphill Gardens, but others are found in the eastern part of the unit. Women who travel to a hairdresser in another town, and those who employ a hairdresser at their homes or have friends in to set their hair, are found in all parts of the unit. Visits are made to towns in North-west Lanarkshire and in the Glasgow conurbation, particularly when grandparents there can care for young children while the mother is at the hairdresser. Altogether, women in only about one-third of the households are clients of the hairdressers in Calderwood.

(vi) Libraries The library in Calderwood has a membership that extends all over the neighbourhood unit, with the highest proportion of borrowers in the central part of the unit, and very few in the extreme south-west and north-east. Most people in the south-west use the town centre library. Membership of the branch in Calderwood Square entitles people to use the library in the town centre, although only a few take advantage of both. According to a librarian at the town centre, copies of the same books are provided at all the East Kilbride libraries, but with more copies going to the town centre. As a result, a better selection is often found there. Only in the central part of Calderwood are there very few who use the library in the town centre, although the record library is an added attraction. The few who use libraries beyond Calderwood and the town centre are found scattered in different parts of the unit.

The distribution of borrowers in the unit appears to bring people together from every part of the unit, but the irregularity and infrequency of borrowing by many of the members, needs to be taken into account.

(d) CRAIGSHILLTable 13.24 Use of services by Craigshill residents
(Total households = 146)

	<u>Bank</u>	<u>Doctor</u>	<u>Dentist</u>	<u>Shoe Repairer</u>	<u>Ladies' hair- dresser</u>	<u>Library</u>
Craigshill	26	131	93	-	49	25
Home	-	-	-	-	20	
Mobile service	11	-	-	1	-	20
Craigshill and elsewhere	3	-	4	-	1	
Livingston Station	-	-	-	-	2	
Bathgate	37	-	17	46	22	6
Edinburgh	23	2	9	31	15	3
Broxburn	13	-	11	8	6	2
Elsewhere	28	13	5	21	18	2
Not applicable	5	-	7	39	3	88

(i) Banks By the time the survey was carried out in Livingston, banks had established branches in The Mall near the centre of the district, and were trying to attract prospective clients. Because they are so new, many people have not transferred their business although they are considering doing so. In the meantime, as permanent premises are leased, the importance of mobile banks of declining. The majority of people still bank in the towns to which they transferred their accounts when they moved to Livingston, such as in Bathgate, the Calders, Broxburn and Uphall. Some of these are near their work place. Thus, although facilities have been provided at an early stage of the town's development, 71% of the households do their banking business beyond Livingston.

(ii) Doctors One doctor in Almond West and another in Craigshill East serve 90% of the population in Craigshill. Nearly all people who go to doctors outside Livingston return to former homes within a radius of five miles. A few travel as far as Edinburgh. The four people in the sample who go to Uphall, have not lived in the environs

previously but they live in Craigshill West, the cell without a surgery.

(iii) Dentists The dentist in Craigshill has temporary premises in a house in Craigshill West. This dentist attracts more patients from that cell (78% of the households) than from the other cells (60% of the households). One of the reasons for as many as 8% of the households in Craigshill having a dentist in Broxburn is that all new tenants on their arrival are given a booklet which lists this service among the services and facilities for Craighill residents. Those who go to dentists in places other than Craigshill, Broxburn and Bathgate, either lived or work near the dentist they attend. Distances range as far as Sheffield, Dunfermline, and Aberdeen. These dentists are normally visited during holidays. However, some of the places named simply show a neglect to register with one nearby. In this respect there is little apparent difference between the cells.

(iv) Shoe Repairers Although many people take their shoes to Bathgate and Edinburgh for repair, 20% of the households use the services of cobblers in a variety of other places near Livingston, such as at West Calder and Pumpherston, and at considerable distances, as for example, at Musselburgh, Stirling and Wishaw. While no local business exists, there seems to be a tendency for more people to rely on the work of friends in the trade at the same time as paying social calls.

(v) Ladies' Hairdressers At the time of the survey a hairdresser had just commenced business in The Mall. Up until the opening, a hairdresser in Craigshill visited clients in their homes, but is no longer doing this regularly. Women in about 14% of the households rely on friends and relations to do their hairdressing at home, partly because of the difficulty of caring for young children elsewhere. The proportion in each cell going to the local hairdresser varies, the smallest numbers being in Almond West where a number of the respondents stated that they had formed a habit of going elsewhere before facilities were provided nearby.

(vi) Libraries A mobile library visits the three large cells regularly twice a week so that each cell has the library service for a total of an hour and a half during Monday and Friday. In addition a library at the Riverside Primary School and Almond West is open for two hours one morning, one afternoon and one evening each week. In this way the three largest cells have a nearby service, but only 30% of the households make use of it. This is partly because of the small number of older children compared with the other residential units where many of the children are the only borrowers in a household, and partly because these odd hours are not convenient for many who work outside Livingston. The greater variety of opening times at Riverside School is reflected in the larger number of households in Almond West (44%) using the libraries, compared with Craigshill East (28%) and Craigshill West (20%).

(e) DEANS

Table 13.25 Use of services by Deans residents (Total households = 74)

	<u>Bank</u>	<u>Doctor</u>	<u>Dentist</u>	<u>Shoe Repairer</u>	<u>Ladies' hair- dresser</u>	<u>Library</u>
Deans	1	57	-	26	34	-
Home	-	-	-	-	6	-
Mobile service	3	-	-	-	-	23
Deans and elsewhere	1	-	-	1	2	1
Craigshill	1	3	2	-	-	-
Bathgate	50	12	59	39	25	5
Edinburgh	3	-	3	-	-	-
Broxburn	2	-	2	-	-	1
Elsewhere	6	2	2	1	5	1
Not applicable	7	-	6	7	2	43

(i) Banks Apart from the post office only a mobile bank provides banking services for the people in Deans. Its use is limited to a few households in Deans South. Little

custom has been transferred from the banks in Bathgate which were used by most people when they first arrived in Livingston. These now serve 69% of the households. Banks are used elsewhere because they are near the work places or still accessible from their new homes.

(ii) Doctors The doctors who have a surgery in Deans are based in Bathgate so that unless appointments can be made at certain hours during the day in Livingston Station, patients must go to Bathgate. The figures in Table 13.25 refer to the place where the doctor is most often seen. Especially when both husband and wife are working, visits to a doctor involve a trip to Bathgate. The 4% who go to Craigshill provide one of the few contacts that people in Deans have with the eastern section of the town.

(iii) Dentists As no dentist's surgery has been set up in Deans, residents from 80% of the households go to Bathgate for dental treatment. Only 3% of the families have registered with the dentist in Craigshill. In Deans, compared with the other residential units, there is a less obvious relationship between the location of dentists and places of work or former residence.

(iv) Shoe Repairers It is significant that most people who take shoes to Livingston Station for repair, live in the northern part of the district. In Deans South 72% of the households have their shoes repaired beyond Livingston while the proportion of the rest of the district is 44%.

(v) Ladies' Hairdressers As in some of the foregoing discussions a difference exists between the households in the north of the district and those in the south. In Deans South women from 31% of the households go to the local hairdresser while 58% of households in the north utilise this service. Women from approximately half of the houses in Deans South go to a hairdresser elsewhere, and particularly to Bathgate, compared with 38% in the northern part of the district. This is yet another facility that orients many Deans South residents towards Bathgate.

(vi) Libraries A mobile library serves all parts of Deans but people in Deans South make more use of it. In the

north 20% of the households use it compared with 52% in the south. No difference can be seen between the north and the south in the proportions of people using libraries in other towns.

(f) SUMMARY

Table 13.26 Use of banks in the residential units
(Percentage of households)

	Wood- side	South Parks	Calder- wood	Craigs- hill	Deans
Within the unit	35.1	-	0.8	17.8	1.3
Mobile banks	-	-	-	7.5	4.1
Within the unit and beyond	-	-	3.5	2.1	1.3
Town centre	47.7	79.1	63.3	-	-
Other unit	-	-	12.0	-	1.3
Elsewhere	11.7	11.0	14.1	29.2	82.4
Not applicable	5.4	9.9	6.4	3.4	9.5

The differences between one unit and another are influenced by the presence of banks within the residential unit and elsewhere nearby. The place of a person's work is often more of a determinant of the use of banks than the location of a residence. Relatively small numbers use local banks that are situated in the residential units, compared with those located in other places. In Woodside for example, just over a third of the households make use of a nearby branch while almost half go to the town centre. The reasons for these differences are partly a result of the stage of the town's development during which banks were established. Also people are more likely to transfer an account to another branch of the same bank than to a different bank. As most residential units normally have only one or two branch banks, residents may not find that their particular banks have premises nearby. They therefore choose to go to the town centre or elsewhere.

* 78.4% of the households visit the surgery in Gos Lane.

Table 13.27 Doctors visited in the residential units
(Percentage of households)

	<u>Wood- side</u>	<u>South Parks</u>	<u>Calder- wood</u>	<u>Craigs- hill</u>	<u>Deans</u>
Within the unit	-	71.4	58.2	89.7	77.0
Several places	2.7	1.1	1.6	-	-
Town centre	-	-	15.7	-	-
Other unit	79.3*	16.5	17.3	-	4.1
Elsewhere	18.0	11.0	7.2	10.3	18.9

Visits to a doctor are more commonly within a residential unit than elsewhere. Of the services studied, that offered by the general practitioner is the only one used by every household in the sample. The likelihood of a doctor being needed in an emergency helps to convince people of the desirability of registering with someone nearby. The psychological effect of remaining with a doctor known to the family, accounts for a proportion of those who go elsewhere to consult a doctor. It is significant that the largest of the residential units has the lowest proportion of people visiting a local doctor.

Table 13.28 Dentists visited in the residential units
(Percentage of households)

	<u>Wood- side</u>	<u>South Parks</u>	<u>Calder- wood</u>	<u>Craigs- hill</u>	<u>Deans</u>
Within the unit	-	-	60.1	63.7	-
Several places	1.8	3.3	2.7	2.7	-
Town centre	61.3	82.4	2.4	-	-
Other unit	-	-	17.0	-	2.7
Elsewhere	25.2	9.9	11.2	28.8	89.2
Not applicable	11.7	4.4	6.6	4.8	8.1

Both doctors and dentists are often chosen because of their proximity to the work place or to the home, so a high proportion of the populations in Calderwood and Craigshill

* 78.4% of the households visit the surgery in Cos Lane.

make use of their local dental facilities. These are, however, the only two units where areal variations exist, relating to the dentists attended.

Where no dentists are found in a unit, the majority of people go to the nearest, so people in Glenrothes go to the town centre and people in Deans go to Bathgate. The differences between South Parks and Woodside can be partly explained in terms of the time that the dentists commenced their practices in relation to the time of the precincts' settlement. Convenience, at the time of settlement in the New Towns, is clearly an important factor in the distribution of the population using specific dental services.

Table 13.29 Use of shoe repair services in the residential units (Percentage of households)

	Wood- side	South Parks	Calder- wood	Craigs- hill	Deans
Within the unit	7.2*	-	35.1	-	35.1
Delivery service	-	17.6	9.0	0.7	-
Several places	-	1.1	1.1	-	1.4
Town centre	47.7	56.0	22.1	-	-
Another unit	-	-	2.7	-	-
Elsewhere	35.1	14.3	9.0	72.6	54.1
Not applicable	9.9	11.0	21.0	26.7	9.5

Varying proportions of the populations never make use of a shoe repairing service. This seems more characteristic of the younger age groups.

The differences between the residential units shown in Table 13.29 are mainly the result of the proximity of shoe repairers in relation to major convenience shopping facilities. When a shoe repairer is found within a unit as in Calderwood and Deans, approximately one-third of the households take shoes there. The town centre is used by about half of the people in the precincts of Glenrothes. In South Parks the remaining half rely on a delivery service, go elsewhere or do not have their shoes repaired. Woodside's statistics differ because of the attraction of a shoe repairer in Thornton that can be reached by public

* No longer possible to have shoes repaired locally.

or private transport on the A92 route leading to Kirkcaldy. Fewer people in South Parks use this road and fewer normal shopping trips are made from South Parks to Kirkcaldy, so access to Thornton is not as convenient. If the town centre is used regularly for shopping, shoes tend to be taken there for repair, hence one-fifth of the Calderwood households take shoes to the town centre although a cobbler is found at the Calderwood shopping centre. Livingston has no town centre, and Bathgate which is visited more than the local shops, is used for shoe repairs by about half of the population. The relationship between the location of shopping for convenience goods and shoe repairs is present in the areas where a shoe repair service is available at the shopping centre.

Table 13.30 Ladies' hairdressers visited in the residential units (Percentage of households)

	<u>Wood- side</u>	<u>South Parks</u>	<u>Calder- wood</u>	<u>Craigs- hill</u>	<u>Deans</u>
Within the unit	42.3	35.2	32.2	33.6	45.9
Home	4.5	9.9	11.4	13.7	8.1
Town centre	29.7	29.7	25.0	-	-
Several places	0.9	-	2.7	0.7	1.4
Other unit	0.9	-	7.4	1.4	-
Elsewhere	14.4	23.1	20.5	48.6	41.9
Not applicable	7.2	2.2	0.8	2.1	2.7

When the residential units are considered as a whole and compared, more similarity is found among the figures for visiting hairdressers than for other services. This is partly due to the location of at least one hairdresser in each unit. Yet, in no residential unit is there a hairdresser serving as many as half the households. Even in East Kilbride where a big choice of facilities occurs locally, in the town centre, and in other neighbourhood units, women from 20% of the households go beyond the town to visit a hairdresser. The easy access and frequent transport services to Glasgow help to accentuate this. The higher proportion going outside Livingston is related

to the limited choice of hairdressers; but in all New Towns a wide variety of locations is visited, and particularly from units with many young children the choice seems to be influenced by the possibility of leaving the children with friends or relatives. Thus, the convenience of a local hairdresser is not the only factor, or even of most importance in the choice of hairdresser, by many of the New Town residents.

Table 13.31 Use of libraries in the residential units
(Percentage of households)

	<u>Wood- side</u>	<u>South Parks</u>	<u>Calder- wood</u>	<u>Craigs- hill</u>	<u>Deans</u>
Within the unit	57.7	-	48.9	17.8	-
Mobile library	-	-	-	13.7	31.1
Town centre	-	-	16.0	-	-
Other unit	0.9	46.2	0.3	-	-
Several places	1.8	2.2	6.6	-	1.4
Elsewhere	2.7	3.3	1.3	8.9	9.5
None	36.9	48.4	27.9	59.6	58.1

When a library has not been built in a residential unit the population must rely almost entirely on mobile or temporary libraries or go outwith the town. In units where no permanent library exists, a smaller proportion of the population are members of a library. The location of libraries in the shopping centres of residential units makes them more readily accessible than libraries in other parts of the units. Even a distance of a few hundred yards influences the extent of their use. For example, the library in the Woodside shopping centre is used by more people in the precinct, than the library in Auchmuty is used by South Parks residents. Membership is particularly high in some units, because these figures include households in which children are the only members. This applies mainly in Woodside and Calderwood. Very few children in Craigs-hill and Deans use the public library facilities because school libraries cater for many of their needs and the mobile libraries are in the cells during school hours.

Where there are adequate local facilities, few people go further than the nearest library. The larger number of Livingston residents using libraries elsewhere reflects the limitations of the shorter, periodic opening hours.

Table 13.32 Households using services within the residential units (Percentage of Households)

	<u>Wood- side</u>	<u>South Parks</u>	<u>Calder- wood</u>	<u>Craigs- hill</u>	<u>Deans</u>
{Bank	35.1	None		17.8	
{Mobile bank				7.5	4.1
{P.O. only			0.8		1.3
Doctor	None (81.1 in East Neighbourhood)	71.4	58.2	89.7	77.0
Dentist	None	None	60.1	63.7	None
Shoe Repairer	7.2	None	35.1	None	35.1
Ladies' hairdresser	42.3	35.2	32.2	33.6	45.9
{Library	57.7	None	48.9	17.8	None
{Mobile library				13.7	31.1

Table 13.32 illustrates the extent to which selected services in residential units are used by the inhabitants of their respective units. Of these six services the medical and dental services are the only two that are used by more than half of the households. No individual unit has all six services, but none of the three towns is without any one of the six. Mobile facilities have augmented the towns' services, for example, banks and libraries in Livingston.

A greater choice of services is available for some residents, depending on the locations of the towns themselves, facilities within the towns, and the personal circumstances of the people. For example, in Calderwood most people have the option of using services locally, in the town centre, in other neighbourhood units or in Glasgow and other nearby towns. In Glenrothes a more limited range is found at the town centre than in East Kilbride, but

Kirkcaldy provides opportunity for selection. Livingston has no town centre and less frequent public transport services to other towns than either East Kilbride or Glenrothes, so the choice for residents there becomes more limited.

Most of the services are normally used infrequently and/or irregularly, for example dentist's visits may be regular but only twice a year. Some people borrow books from a library weekly or fortnightly but the majority of respondents indicated that trips were of a much more spasmodic nature. Shoe repairs are normally required at uneven intervals but visiting the bank is often a more regular occurrence.

The patterns for each service have already been described for the individual units. The following description of services as a group will indicate the extent of common characteristics, and the general patterns derived.

Woodside has four of the six services located within the precinct. Of these four, 12% of the households use none of them, 41% use one and 48% use more than one. Overall the differences between one part of the precinct and another are not very marked. However, in the area north of Bighty Burn and the path to Woodside Way 70% of the households use none or only one of the services, and another small peripheral area in the extreme south-west shows a similar high percentage. In the rest of the precinct there are only 44% that make such little use of these facilities. The area where most use is made of the town centre does not coincide exactly with the areas where least use is made of the services in the precinct. Least use is made of the town centre by households in the centre of the precinct, while most use is made by households to the north and south. One-third of Woodside's population go beyond Glenrothes for two or more services.

South Parks has only two of the services provided within the unit so residents are obliged to go at least as far as the town centre. Seventy-one per cent of the residents are registered with a doctor in the group practice. Those households where no-one makes use of either the local

medical or hairdressing services are found in the south of the precinct. It is significant that in the northern part which is most recently developed, more use is made of local facilities. Throughout South Parks the majority of the people depend on the town centre for most services.

The use of facilities in Calderwood produces a blurred pattern that is nevertheless significant. It reveals a three-fold division between the south-west, the west and central area, and the east. The south-west is oriented towards The Village and the town centre; the central area is focused on Calderwood Square with fewer people using services in the town centre except for banking; and the east, including the area around Stobo and Gibbon Crescent, has more of its services based in the town centre, with a high proportion of the households using none or only one of the neighbourhood facilities. A few small clusters as around Alison Lea and Robertson Drive seem to be oriented towards services in Glasgow, but the numbers in each cluster are small.

Although there appear to be inadequate shopping facilities in Craigshill it is well supplied with services and the majority of people make use of at least some of them. Least use is made in a small section in the west of Craigshill East where several households have both husband and wife working. However, although five out of the six services are found in Craigshill, most people make use of several services elsewhere. Where a service exists in one cell more use is made of it by people in the same cell than by households in cells half a mile away. For example, 78% of the households in Craigshill West use the local dentist, but 62% in Craigshill East and only 50% of those in Almond West. This could be explained by the relative isolation of the service, but a more likely reason is because the dentist set up his practice in Craigshill West after Almond West was settled and its residents had by that time made other arrangements. Where all people go out of Craigshill, as for shoe repairs, or to a more central location in the district as to the hairdresser or banks, less difference is found in the distribution of clients between the cells.

In Deans a clear distinction exists between the north and south, particularly in the use of services that are provided locally, such as hairdressing and shoe repairing. No marked differences appear between the two parts, for medical, dental or banking services. People in the north make much more use of the services provided in Livingston Station than people in Deans South. As with shopping, this is partly related to the ages of the inhabitants and the length of time they have lived in the district. However, throughout Deans more use is made of local services than of local shopping facilities.

The location and distance to both shopping and service facilities are only two of the significant factors relating to the extent of their use. In all the New Towns there is more areal variation in the use of the facilities found in the residential units than where there are none. Where people travel beyond the residential units for shopping and services there is less likelihood of interaction among the residents than where they go to shops and services within the unit. However, even where the facilities are provided there is no assurance they will be used except to provide assistance during emergencies. The information collected during the survey of the New Towns' residential units illustrates how some of the services used most infrequently but required more urgently are those to which people go locally, and how other requirements needed more often are obtained away from the residential unit.

Except where otherwise stated, in this section percentages are based on the total households in the sample. A percentage of male householders shows the proportion of male householders with a certain characteristic, to the total number of households. Figures for women refer to women with a particular characteristic who are householders and wives of householders.

(a) WOODSIDE

CHAPTER XIVEMPLOYMENT IN THE RESIDENTIAL UNITS

Table 14.1 Work places of Woodside householders and their spouses (Total households = 111)

The reasons for a policy of socio-economic balance were given in Chapter V, and descriptions of the socio-economic characteristics of the populations of the New Towns were given in Part II. Thus, it is unnecessary to repeat the explanations of these features nor the descriptions of the industrial areas associated with each New Town. The results of the survey reveal some variations in the employment of people living in different parts of the residential units. They also serve to emphasise that it is not merely the provision of a sufficient number, but also a large enough variety of jobs, at the time a unit is being settled, that lead towards a realisation of greater self-containment and balance.*

Kirkcaldy and district	18	3
Thornton	2	-
Westfield	2	-
Elsewhere	25	2
Retired, housewives, students, not applicable	17	71

The figures above indicate that 47% of the householders work within the town and 43% beyond Glenrothes. Of this latter group, most work in Kirkcaldy. The 23% who work in other towns, travel to places in Fife and beyond, and even as far as Edinburgh and Glasgow.

The greatest single employer of Woodside residents (male) is Tullis Russell, the paper manufacturers. Of the industrial estates, Queensway attracts more than the others, partly because it was the first of the estates to have any extensive development. The Queensway Industrial Estate

*Except where otherwise stated, in this section percentages are based on the total households in the sample. A percentage of male householders shows the proportion of male householders with a certain characteristic, to the total number of households. Figures for women refer to women with a particular characteristic who are householders and wives of householders.

Queensway find the town centre more convenient for shopping and services than the Woodside shops.

(a) WOODSIDE

Table 14.1 Work places of Woodside householders and their spouses (Total households = 111)

	<u>male</u>	<u>female</u>
Glenrothes Industrial Estates		
(i) Viewfield	5	3
(ii) Queensway	8	11
(iii) Eastfield	1	2
Tullis Russell	13	11
Woodside Precinct	8	8
Other precincts	7	2
Town centre	4	4
Markinch	1	2
Leslie	-	2
Kirkcaldy and district	18	3
Thornton	2	-
Westfield	2	-
Elsewhere	25	2
Retired, housewives, students, not applicable	17	71

The figures above indicate that 41% of the householders work within the town and 43% beyond Glenrothes. Of this latter group, most work in Kirkcaldy. The 23% who work in other towns, travel to places in Fife and beyond, and even as far as Edinburgh and Glasgow.

The greatest single employer of Woodside residents (male) is Tullis Russell, the paper manufacturers. Of the industrial estates, Queensway attracts more than the others, partly because it was the first of the estates to have any extensive development. The Queensway Industrial Estate also attracts more women than other estates, due to the nature of the work available. There is a tendency for more working in Queensway, to live on the east side of Woodside, and this provides a further explanation for the orientation of shoppers towards the town centre, in that section of the precinct. Workers in Queensway find the town centre more convenient for shopping and services than the Woodside shops.

Within Woodside there are several small clusters of households, in each of which the men work either in Glenrothes or beyond the town. Four separate clusters show a marked predominance of people working either in Kirkcaldy or in another town: (i) north of the west end of Bighty Avenue, (ii) the south-west of the precinct, (iii) around the Woodside Way shopping centre, (iv) around Carleton Crescent and the northern part of Carleton Avenue. A section around the southern part of Woodside Way and the east end of Woodside Road has a large proportion of workers employed by Tullis Russell; in Alburne Park three out of the four in the sample work within Glenrothes either for the Development Corporation or another organisation; and at the west end of Sythrum Crescent and Balgonie Avenue is a greater proportion of men who work in the town. Elsewhere, particularly in the eastern part of the town, much less differentiation from one part to another is evident. These clusters appeared to have no particular influence on patterns of social activities in the precinct.

Women from only 36% of the households have an occupation other than that of housewife. Approximately three-quarters of this group work within Glenrothes and the other quarter in nearby towns. Only a few go as far as Kirkcaldy. Many women with children of school age do part-time work. None of the women in the sample, in Alburne Park, are in employment, and only approximately a quarter of the women in the part of the precinct south of Bighty Burn and the path to Woodside Way, go to work; but in the north, women in about three-fifths of the households are employed. In Woodside, among the women who are working, half work in semi-skilled and unskilled jobs.

Of the workers not accounted for in the group incorporating householders and their spouses, most are dependents. Approximately 17% of the households have dependents working in Glenrothes and about the same number have dependents working in other towns. These people are scattered throughout the precinct, but with a few more in the Fife County Council houses than in areas where there are younger families. The west of Woodside, the south-west and Alburne

Park are the areas where there is commonly only one person employed in each house. It is usual to find two or more employed people through most of the eastern and northern parts of the precinct.

Table 8.6 showed the high proportion of men in the middle socio-economic class which includes foremen, skilled manual workers, own account workers (other than professional) and non-manual workers. People in this group are found in all parts of the precinct except Alburne Park where all those interviewed are in the class of professional workers or employers and managers. All the major classes listed in the General Register Office "Classification of Occupations" are represented over the rest of Woodside. The south-west area around Well Road has a higher proportion of householders in the first two socio-economic groups than other parts of the precinct.

The type of transport used to and from the place of employment affects the extent to which a person comes into contact with others going in the same direction. Generally, a person driving a car or any other vehicle makes less contact with others, than those travelling by public transport or walking. In Woodside, 50% of the households have a car; the men in 41% of the households drive to work and a further 8% go as passengers, 13% of the men walk to work, 9% go by bus, 8% ride bicycles or motor cycles and 3% are collected by their firms' transport. The pattern for women is different because it is more usual for the man to take the car. Many women have sought work close at hand so that they are not far from their homes, and many of them have part-time work which does not require an early start or a late finish. Women in 11% of the households drive or are driven to work, 16% walk and 9% take the bus.

For the journeys to work in Queensway, Eastfield, the residential units or the town centre, there seems little relationship between the distance travelled and the method of transport used. As there is a lower level of car ownership in the central area east of Woodside Way, fewer people travel to work by car. Some walk from the eastern edge of Woodside to the Queensway Industrial Estate and

others walk from Alburne Park to the Development Corporation Offices while others use vehicular transport over shorter distances. The location of the bus routes in Woodside has no apparent influence on the use of bus transport for the journey to work.

(b) SOUTH PARKS

In the South Parks sample, men in 87% of the households are employed; 35% within Glenrothes and 52% outwith the town. Hence, in this precinct, a smaller proportion work within the designated area than is found in Woodside.

Table 14.2 Work places of South Parks householders and their spouses (Total households = 91)

	<u>male</u>	<u>female</u>
Glenrothes Industrial Estates		
(i) Viewfield	5	3
(ii) Queensway	10	2
(iii) Eastfield	2	1
Tullis Russell	3	-
South Parks Precinct	2	3
Other precincts	8	7
Town centre	2	2
Markinch	5	-
Leslie	3	1
Kirkcaldy	10	7
Westfield	4	-
Elsewhere	25	2
Retired, housewives, students, not applicable	12	63

Women in 20% of the households in South Parks work within Glenrothes, while only 11% work elsewhere. Of these women twice as many work in the residential units and town centre, as in the industrial estates. Compared with Woodside, a smaller proportion of women are in employment. This is partly related to the number of families with small children.

Kirkcaldy, which is the main single place of employment outside Glenrothes, provides work for men in 11% and for women in 8% of the households.

Several features distinguish the northern and southern parts of the precinct. There are fewer working women in the northern part of the precinct, and at the same time there is a higher proportion of householders in the professional and managerial classes. Out of a total of fourteen houses in this section, half are headed by a man in one of these classes, three are in the middle socio-economic group, and one is classified as a semi-skilled worker. In the south, the socio-economic composition of the population is more mixed, but has a majority in the classes mentioned above, as well as a few students.

Car ownership in South Parks (60%) is higher than in Woodside (50%). As fewer people on the eastern side of the precinct have cars, more use is made of public transport and cycles than in other parts, but it is from the north that most people walk to work. These men work either in Queensway or in South Parks. Compared with Woodside a higher proportion of the working women use cars to go to work, and this is most noticeable in the south-west where out of fourteen women, eight go by car.

Relating to employment, the significant features in South Parks are the large proportion in the upper socio-economic classes, the large number working outside Glenrothes, the small number of women working, the extensive use of cars for the journey to work, even over short distances; and the differences existing between the northern and southern parts of the precinct in these respects.

In the Calderwood sample, women in 42% of the households go out to work, 27% within East Kilbride, and the rest elsewhere. Glasgow is the major source of employment, particularly of those employed in non-manual posts. Many of these women worked in Glasgow before going to East Kilbride and have either continued, or have returned to work there after an interval. The growth of College Milton, as well as Herston, at a time when many women in Calderwood were seeking jobs, has resulted in large numbers travelling

(c) CALDERWOOD

Table 14.3 Work places of Calderwood householders and their spouses (Total households = 376)

	<u>male</u>	<u>female</u>
East Kilbride Industrial Areas		
(i) Nerston	51	19
(ii) College Milton	48	27
(iii) Kelvin	2	4
(iv) National Engineering Laboratory	15	3
Calderwood Neighbourhood	10	18
Other neighbourhood units	20	12
Town centre	13	19
Elsewhere	175	57
Retired, housewives, students, not applicable	42	217

The work places of Calderwood residents are widely dispersed. Of those householders who work outside East Kilbride the largest number go to Glasgow, but smaller numbers go to Blantyre, Hamilton, and beyond, while a very small proportion (3%) have work that involves extensive travelling throughout Scotland. Industries have been established in all the industrial areas during the years that Calderwood has been settled. The location of work within East Kilbride shows little relationship to the place of residence, as is indicated by figures showing that men in 14% of the households work in Nerston and 13% in College Milton at the other end of the town.

In the Calderwood sample, women in 42% of the households go out to work, 27% within East Kilbride, and the rest elsewhere. Glasgow is the major source of employment, particularly of those employed in non-manual posts. Many of these women worked in Glasgow before going to East Kilbride and have either continued, or have returned to work there after an interval. The growth of College Milton, as well as Nerston, at a time when many women in Calderwood were seeking jobs, has resulted in large numbers travelling

in both directions. Several factories in College Milton enable women to work a back shift which many prefer because they like to do their housework and visiting during the day, and leave children in the care of their husbands during the evening.

Only a small proportion of men (3%) and women (5%) work within the neighbourhood unit.

Within Calderwood, no marked differences appear between one part and another with reference to the place of employment, but a few areas have higher proportions of people working within East Kilbride. These coincide with the higher amenity and owner-occupied areas. As a contrast, there is an area around Tannahill Drive and Alison Lea from which both men and women work in Glasgow; and different also is Capelrig Drive from which the majority of men work in Glasgow and elsewhere, while most of the women work in the town.

The difference in places of work has some bearing on the shopping patterns that have already been described. From Maxwellton Road to Wingate Drive is an area where women work in industries in both Nerston and College Milton. There is a tendency for those who work in College Milton to do more shopping at the town centre and for those in Nerston to shop at Calderwood Square. The location of the Calderwood shops is such that nearly all people living within a quarter of a mile must pass them, when taking a reasonably direct route to the Nerston Industrial Estate. People working in College Milton normally pass near the town centre whether they travel by bus or car.

The results of the interviews do not reveal specific areas where the majority of people work in one industry, but several interviewees described the area of Calderwood 1, north-west of Maxwellton Avenue, as a "Rolls Royce ghetto". This firm dominates employment in Calderwood as a whole.

Other workers who do not fall into the category of householders and their spouses, are found in 17% of the households scattered throughout the neighbourhood unit. Approximately half of them work at various places in East Kilbride and the other half work chiefly in Glasgow.

Table 7.3 showed the socio-economic groups of the males in the population and the outstanding predominance of people in the class which includes foremen, skilled manual workers, own account workers (other than professional) and non-manual workers. People from all socio-economic classes are found throughout the neighbourhood unit, although there are variations in their relative proportions. For example, there are more semi-skilled and unskilled workers in the western half of the town than in the east. In the south-western extension of the neighbourhood unit, half of the householders are in the professional and managerial classes, and the other half are in the group of skilled manual workers. Another section with a high proportion in these groups is in Stobo-Gibbon Crescent-Tannahill Drive, and two smaller pockets, that are less clearly brought out in the 10% sample, in Capelrig Grove and Warwick.

In the Calderwood sample 59% of the households have cars and half of the householders use cars for their journey to work. The distribution of car owners is uneven. In the north-east part of the unit, and in the extreme south-west, three-quarters of the men travel by car. As a result of the lower level of car ownership, in other parts of the unit more people walk or travel by bus. In the north-east there is a slightly lower density of women working, but a higher proportion of those who do, travel to work by car. The women who work on back shifts in College Milton find the lack of transport late at night an inconvenience, and overcome it by the use of taxis, private buses and car pools.

The main characteristics of the employment of Calderwood residents are the widespread occurrence of their work places; the extent of car transport for the journey to work, particularly by people in the north-eastern and the south-western parts of the unit; and the particular importance of one firm (Rolls Royce) for employment and the provision of social facilities for its workers. The high proportion of women in employment gives rise to complaints in some areas, by those who feel that this limits opportunities of meeting neighbours.

(d) CRAIGSHILLTable 14.4 Work places of Craigshill householders and their spouses (Total households = 146)

	<u>male</u>	<u>female</u>
Houston Industrial Estate	48	8
Craigshill District	7	10
Other districts	21	3
Elsewhere	67	33
Retired, housewives, students, not applicable	3	92

The distribution of work places outside Livingston is shown in Table 9.3. According to the survey, 46% of the householders work beyond Livingston, while 52% are employed within Livingston. Most of the latter group work at the Houston Industrial Estate. Women from 37% of the householders are working, and very few of these work within Livingston. Women from 23% of the households work in Edinburgh, Bathgate, Bangour, and elsewhere, as there are only limited opportunities for female employment in Livingston at present.

Of particular importance is the Cameron Iron Works which employs approximately 27% of the Craigshill households. By including a few others who are not householders, almost 30% of the households have some connection with this firm which dominates this part of the town. Workers at Cameron Iron Works and other firms in the Houston Industrial Estate are found throughout all cells, except Almond South. 45% of the householders in Craigshill East, 29% in Craigshill West and 19% in Almond West, work in the Houston Industrial Estate. Many of the men are employed on shift work and do a considerable amount of overtime as well. Hence, they are able to spend limited time with their families or participating in local activities in spite of the proximity of their work place.

Craigshill, the newest and first of the residential districts in the east of Livingston, has a high proportion of the population working in other residential districts.

They are mainly concerned with the construction of new housing developments, or are employed by the Livingston Development Corporation.

The socio-economic structure of the population shows the same general characteristics as the other New Towns. Almond South, with its higher amenity housing, is a cell with more in the upper classes. According to an analysis of the data obtained from the Livingston Development Corporation, more than half of the householders in Almond South are in the professional and managerial classes whereas the figures for the other cells fall below 15%. In Almond South approximately 5% are in the semi-skilled and unskilled class, but in the other cells the proportions are between 20% and 30%.

Within Craigshill 58% of the households have cars, and 51% use them regularly for work. By adding the number of people driven to work, a total of 58% of the householders travel to work by car. All the men in Almond South drive to work. In Almond West more use is made of public transport. Only a few people walk to work, but the proportions are at variance with the proportions of those working in Houston and Craigshill. In Almond West 11% of the men walk to work, in Craigshill West 21%, and in Craigshill East 28%. The high proportion of women working beyond Livingston means that only a few walk to work. Of the 18 women in the sample who work in Craigshill or the Houston Industrial Estate, 15 go on foot, but this forms only 10% of the total households. In comparison, twice this proportion travel by bus.

The strong influence of Houston, and particularly of one firm, on the employment characteristics of Craigshill, is offset by the planning and constructional labour force, and the ease of communication with areas nearby. The employment pattern will show an increase in tertiary industries and the eventual reduction of the constructional labour force as the New Town develops.

(e) DEANSTable 14.5 Work places of Deans householders and their spouses (Total households = 74)

	<u>male</u>	<u>female</u>
Houston Industrial Estate	7	4
Deans District	3	6
Other districts	6	2
Elsewhere	37	16
Retired, housewives, students, not applicable	21	46

The necessity of miners finding work when the shale mines closed and the opportunities offered by the British Motor Corporation and other firms in Bathgate, help to explain why half of the householders (70% of the employed householders), are working out of the town.

In several respects differences are found between the employment of residents in the north of the district, and those in Deans South. In the north, 42% of the householders (68% of the employed householders) work outside Livingston, while 55% of Deans South householders work outside the town. Hence, by taking into account the retired and the unemployed, fewer men in the north leave Livingston daily, than in Deans South. In the northern part of the district, 42% of the householders spend most of their time in the district compared with 17% in Deans South. The position is the reverse for women; in 62% of the households in Deans South and in 51% of the households in the north, the women are occupied with their own domestic duties. This difference is mainly because of the large number of young families in the south.

Differences exist between the north and the south in the socio-economic characteristics of the population. A comparison of the economically active householders shows that 20% in Deans South and 14% in the north, are in managerial and professional classes. In the class of skilled manual workers and non-manual workers the figures

are 60% and 47% respectively. In Deans South 20% are in the semi-skilled and unskilled classes, while in the north there are 39% in those classes. The distribution of these socio-economic groups within the five sub-areas is generally scattered, but a clustering of lower groups and retired people occurs in Main Street.

In Deans District most people leave the district for work. In the north, a greater number are retired or work locally so fewer leave the district daily; a greater proportion travel by bus; and more work in Bathgate than in any other single area. In the south the socio-economic structure differs; a greater proportion of the householders work in the New Town; and the motor car is the main form of transport for the journey to work.

(f) SUMMARY

A comparison of the places of employment, journeys to work and the socio-economic structure of the residential units reveals several common traits.

The percentage of householders in employment varies with the age structure. In Deans which has a large group of older people, 72% are in active employment, while in Craigshill with a youthful age structure, 98% of the householders are employed. As well as the age structure, and consequently the occurrence of young families, the number of females in employment is dependent on the proximity of work and the social and economic characteristics of the population. For example, South Parks with a higher proportion of professional and managerial workers, has fewer women working, than other residential units.

In none of the New Towns is there a large majority of men working within the designated area, in spite of housing allocation policies which give priority to people who work in the towns.

Where a large number of people do shift work, there tends to be less club and society membership because regular attendance cannot be guaranteed. Assuming that

Table 14.6 Percentages of householders and their spouses employed

	<u>Woodside</u>		<u>South Parks</u>		<u>Calderwood</u>		<u>Craighill</u>		<u>Deans</u>	
	m	f	m	f	m	f	m	f	m	f
Within the New Town	41	28	35	20	42	27	52	14	22	16
Outwith the New Town	43	8	52	11	47	15	46	23	50	22

In Glenrothes and East Kilbride more women work in the New Towns than beyond them, so on an average women spend more time within the New Towns than men.

The ratio of dependents working within and beyond the New Towns is similar to that of the householders in the older residential units, but in Craigshill a comparatively smaller proportion of dependents work within the town, as seen in Table 14.7

Table 14.7 Work places of dependents

	<u>Woodside</u>	<u>South Parks</u>	<u>Calderwood</u>	<u>Craighill</u>	<u>Deans</u>
Within the New Town	19	7	37	4	6
Outwith the New Town	18	9	38	6	4
Total households in the sample	111	91	376	146	74

Little difference exists between the socio-economic status of dependents working in the New Towns and the structure of the population as a whole.

In all New Towns, but particularly in Livingston where new homes are still being furnished, many men work long hours of overtime. They consider it is necessary in order to maintain or raise their standard of living, especially when for many, their new rents are higher.

Where a large number of people do shift work, there tends to be less club and society membership because regular attendance cannot be guaranteed. Assuming that

membership of voluntary groups is important in the cohesion of a community, towns in which employment is dominated by firms demanding shift work, are likely to have fewer men involved in community activities. This impression was given by interviewees in Craigshill as well as a few in Calderwood and Woodside.

The location of the work places is important when it influences the families' activities. This happens more often when the work place is in a main centre. For example, many women in Calderwood reported that they meet their husbands in Glasgow after work in order to visit friends or make use of the greater variety of entertainment facilities. Where the work place is in a smaller settlement there is less attraction to remain after work unless the work place is also a place of former residence.

The dominance of any one firm in the employment of householders has a slight cohesive influence in residential areas although this is not limited to an area within the boundaries of residential units. Such an influence is most marked where the firm provides social facilities as well. For example, Rolls Royce has a social club to which many Calderwood residents belong. First contacts in a residential unit come about through propinquity of residence, and friendships are established between families of similar socio-economic status or with other characteristics in common. Employment by the same firm is often one of these characteristics.

Although the use of cars for the journey to work is usual for both shorter and longer trips, public transport is used particularly by workers whose destination is either Edinburgh or Glasgow. The frequency of bus services from East Kilbride to Glasgow and from Livingston to Edinburgh, especially during peak periods, and the problems of parking in the cities, contribute to this use of public transport. In spite of this the high level of private transport helps to make residents independent not only of their residential areas, but also of the New Towns and the facilities they offer.

There is no post-primary school in Woodside and all children of that age leave the precinct. Most of them go to Auchmuty Secondary School or one of the schools in the

CHAPTER XV

SCHOOLS AND CHURCHES IN RESIDENTIAL UNITS

In addition to providing for the education of children and the spiritual needs of the population, both schools and churches frequently also make accommodation available for other activities. Thus they can become important foci in the community.

SCHOOLS

The important place of schools in the plans of the New Towns has already been described. The sizes of the residential units, the density of the population, and even the complete plan of a unit, have in some cases, been based on the provision and optimum location of suitable facilities for education. All plans have aimed to enable children to reach school easily and safely, and in addition, some have aimed to make a school the focal point of the unit. The extent to which a school is used by outside groups varies with the policy of County Education Departments and the attitudes of the heads of the schools. In Part II the location of facilities has been described. During the survey, use of these facilities was investigated, in order to determine the extent to which they act as cohesive forces within the communities.

(a) WOODSIDE (sample = 111 households)

Places of School Attendance

Households with children at school in Woodside	52
Households with children at school in another precinct	30
Households with children at school in another town	5
Households with children at school in Woodside	67

As there is no post-primary school in Woodside all children of that age leave the precinct. Most of them go to Auchmuty Secondary School or one of the schools in the

West Neighbourhood. The lack of a Roman Catholic School in Woodside is an additional reason for children going either to St. Paul's Primary School in the Rimpleton Precinct or to Kirkcaldy for secondary education at a Roman Catholic School. The distance away from the precinct deters some Roman Catholic parents from sending their children to a church school.

Reasons for Attendance at Schools Away from Woodside

Religion	5 households
Special school for physically or mentally handicapped	1 "
No school nearer (post primary or church school)	27 "

Woodside Precinct

The distribution of school children throughout the precinct has been covered in the section on population. There are fewer children at school in the western part of the precinct than elsewhere. A larger proportion of households with children at school are in the eastern part, south of the path from Bighty Burn to Woodside Way. Children going to another precinct are scattered throughout Woodside. At the time of the survey there was a certain sense of superiority among the children who travel by school buses to the West Neighbourhood, and a tendency for these children to behave as a group. This is partly the result of selection for school entry.

Transport to School

Public bus service	8 households
School bus	13 "
Walk	56 "
Bicycle	3 "
Total households	67

Nearly all the children attending schools in Woodside and Auchmuty are close enough to walk each day. Those travelling to Kirkcaldy take the bus. The Community Hall in Woodside is used by a small playgroup, and the only child in the households covered in the survey, was driven there.

In Woodside the schools do not act as main centres for night classes though Carleton School provides accommodation for other activities. People who are interested in adult education classes must go elsewhere, so for swimming or keep fit classes they go to Glenwood Junior High School, and for classes of a more academic nature such as preparation for examinations in English and mathematics, they go to Auchmuty Secondary School. Subjects interesting smaller numbers necessitate longer journeys, as in the case of one man who goes to Dundee for a class in computer programming.

Night Classes Attended by Woodside Residents

	Vocational or Academic	Non- vocational
Woodside Precinct	-	2
Other precinct	6	15
Kirkcaldy	11	-
Elsewhere	1	1
No. of households	18	17

Some classes are held within Woodside. For example, there is an art class held at the Glenrothes Art Club in Alburne Park, and a keep fit class is conducted in St. Margaret's Church Hall. It is unusual for people to go beyond Glenrothes to attend classes of a non-vocational type, although one person in the sample returns to Cardenden weekly to attend a pottery class. People attending these classes are found scattered throughout the precinct.

Between them the two schools in Woodside are attended by children in 46% of the households, but are used to a very limited extent by anyone else in the community. Because they are used by different age groups their pupils are found throughout the precinct. There is no indication that either of the schools has become a focal point in the community.

(b) SOUTH PARKS (sample = 91 households)

There are school children in only 41% of the South Parks households, and four-fifths of them attend a school in the precinct. In comparison 60% of the households in Woodside

have children at school, and three-quarters of them attend a school in the precinct. The different fraction is accounted for mainly by the location of Glenrothes High School in South Parks, and no post-primary school in Woodside.

Places of School Attendance

Households with children at school in South Parks	30
Households with children at school in another precinct	12
Households with children at school in another town	2
Households with children at school who study at college	37

The figures above show that in South Parks about one-third of the households have children at school in the precinct. The proportion is about a half in Woodside. As neither South Parks School nor Glenrothes High School has many other activities taking place in the building, it means that only one-third of the families have direct contact with the schools. Because more children of school age are found in the eastern part of the precinct the impact of the school is likely to be a little greater in that part of the precinct. The children attending South Parks Primary School and Glenrothes High School are all within easy walking distance of the schools. The distance to Glenwood Junior High School is also short enough for walking.

In two families are children who attend St. Paul's Roman Catholic Primary School in Rimbleton. They travel by bus to school. Only two in the sample go away from Glenrothes for their schooling. One is following a full-time commercial course in Kirkcaldy, and one boards at a special school for physically handicapped children.

that with the change to comprehensive education at the end of 1968, children from parts of the Calderwood Neighbourhood would be sent one or two miles to East Kilbride Secondary School in The Village rather than Hunter High School which is near the homes of the children. According to a report in "The Scotsman" it was estimated that a thousand families would be involved in the redistribution (The Scotsman, June 5, 1966). It was found that this would involve Calderwood

Night Classes attended by South Parks Residents

	Vocational or Academic	Non- vocational
South Parks Precinct	-	-
Other precinct	-	8
Town centre	-	2
Kirkcaldy	5	2
Edinburgh	1	-
No. of households	6	11

Few South Parks residents attend night classes conducted either in the town or elsewhere. Five who study at courses in connection with their work or careers go to Kirkcaldy, and another finds it necessary to go as far as Edinburgh. Classes in carpentry at Auchmuty Secondary School, china painting at the Y.W.C.A. in the town centre, and art classes at the Art Club attract small numbers. The distribution of people attending these classes is scattered with a slightly larger number in the west of the precinct where the ties of young families are fewer.

(c) CALDERWOOD (sample = 376 households)

Because the schools play an important part in the upbringing of children, the residents and particularly the parents in the residential units of all the New Towns, are concerned about standards in the schools, facilities available for Protestant and Roman Catholic children, and safety on the journey to school. Shortly after the completion of the survey in Calderwood there was a contretemps between the parents of the Maxwellton Primary School children and the Lanarkshire Education Committee because it was learnt that with the change to comprehensive education at the end of 1968, children from parts of the Calderwood Neighbourhood would be sent one or two miles to East Kilbride Secondary School in The Village rather than Hunter High School which is near the homes of the children. According to a report in "The Scotsman" it was estimated that a thousand families would be involved in the redistribution (The Scotsman, June 6, 1966). It was found that this would involve Calderwood

children taking buses to school instead of walking; and would even pass en route, transport taking children to Hunter High School from other parts of the town.

One of the advantages that has been expressed, of a change to a comprehensive system of education has been the reduction in the amount of travelling done by some pupils. However, the Education Committee decided that for the ultimate provision of this comprehensive education the abolition of a selective school intake and zoning were necessary. According to a letter in the "East Kilbride News" the original plan was to move many children entering high schools. "107 pupils from a primary school in the Mains area to attend high school in the Murray/Calderwood area; 119 pupils from a primary school in the Murray/Westwood area to attend high school in the Calderwood area; and 69 pupils from a primary school in the Calderwood area to attend high school in The Mains." (East Kilbride News, September 6, 1968, p.7.)

This particular change to comprehensive education could not have been foreseen at the time of planning according to neighbourhood units. Nevertheless, it appears that with or without a comprehensive system the schools in each unit will not be serving all the children in the same unit.

Another problem that has occurred in several New Towns has been the number of changes of school suffered by some children. This problem was aired during several interviews, and shortly afterwards was mentioned in the "East Kilbride News" with particular reference to the redirection of children from Long Calderwood and Hunter Primary Schools to the Allers Primary School. People in the vicinity of Salisbury and Pembroke resented having to send their children further away, especially after they had become established at Long Calderwood.

Places of School Attendance

Households with children at school in Calderwood	138
Households with children at school in another neighbourhood	63
Households with children at school in another town	19
Households with children at school	154

Generally Protestant children in the area west of Calderwood Road attend the Maxwellton Primary School, those who live in the more central parts of the neighbourhood unit go to the Hunter Primary School and those who live in the east of the unit attend Long Calderwood Primary School. St. Leonard's Roman Catholic Primary School started taking pupils near the beginning of 1968, but until then, some of the classes were occupying part of Long Calderwood Primary School. Most of the post-primary school pupils in Calderwood go to Hunter High School, but because of the selective intakes previously in operation, several pupils travel to Duncanrig Senior Secondary School in Westwood, and a few go to East Kilbride Junior Secondary School in East Mains. Among the Roman Catholic post-primary school children, a few have the privilege of going to Hamilton and other schools on the basis of selection, but the majority attend St. Bride's School near the town centre. There are school children in 41% of the households in the Calderwood sample, and children in 37% of the households attend a school in Calderwood.

Reasons for Attendance at Schools Away from Calderwood

Religion	35 households
Special schools for physically and mentally handicapped	5 "
No school nearer for the standard required	33 "
Other reasons	6 "

Religion was the main reason specified for attending schools away from Calderwood, particularly in the eastern part, although more provision exists there than in the west. Several children were attending schools elsewhere because it was considered unwise for them to move to another school at the particular stage in their school career. Only one household reported that the children went elsewhere so that they could attend a private school.

Transport to School

Public bus service	40
School bus	20
Walk	149
Bicycle	1
Car	10
Total households	154

Most children walk to school, and although the majority who attend schools in the neighbourhood unit live less than half a mile from the school, the plan has not eliminated traffic dangers. Children still have to cross Calderwood Road which has become exceptionally busy with traffic generated in the unit. Most of the children attending schools in other units have the advantage of a school bus nearby, but those going out of the town normally take the regular service buses.

In East Kilbride the schools are more commonly used for outside activities than they are in Glenrothes, and the Long Calderwood Primary School is a conspicuous example of a school in which many community activities take place. During the week it is used regularly in the following manner:

Sunday: St. Leonard's Roman Catholic Church Services

Moncreiff Church Sunday School

Baptist Church Sunday School

Monday: St. Leonard's Church Parochial Meeting

St. Vincent de Paul Meeting

Ladies' Keep Fit (in response to request by young mothers)

Tuesday: Calderwood Youth Club

Wednesday: Women's Guild (Roman Catholic)

Thursday: Calderwood Youth Club

Periodically there are also meetings held in the school by the Scottish National Party and by the Raeburn Social Club.

At this school, groups are permitted and even encouraged to use the premises. The headmaster considers that owing to the delay in the provision of adequate recreational facilities, it helps to fill the place of a community

centre. The headmaster has also formed a Mothers' Club that meets on Wednesday afternoon, the local half-day. This particular school has established a stronger bond with the surrounding community than is found in other parts of the neighbourhood unit. It is consequently a small focal point for people in the eastern part of the neighbourhood unit, and particularly of those living between Othello in the west, Tewkesbury Road in the east and Maxwellton Road in the south.

Night Classes Attended by Calderwood Residents

	Vocational or Academic	Non- vocational
Calderwood Neighbourhood	3	22
Other neighbourhood	13	10
Glasgow	17	6
Elsewhere	10	3
No. of households	40	42

The numbers attending classes at night schools are small. As in Glenrothes the majority of people seeking training in specific fields must go either to Glasgow or one of the technical colleges at Hamilton or Coatbridge. A cluster of people in the Tannahill Drive area attend adult education classes in Glasgow, making this another link of these residents with Glasgow. Hunter High School is the centre for night classes within Calderwood and these are attended by people from 7% of the households, mainly women. Classes are conducted in such subjects as English, history, dress-making, and conversational French. Duncanrig School has a wider choice of courses including shorthand typing. People attending adult education classes are found throughout Calderwood but with a definite cluster of people in the south-western extremity going to classes of a non-vocational type such as millinery in The Village.

Within Calderwood the part played by the schools in the life of the community varies considerably. Most of the schools have youth clubs and a few other activities take place in their buildings, but only one acts as a centre of the surrounding community. The Long Calderwood Primary

School is in an area away from the main road on a stretch of land that slopes away from the neighbourhood centre, and overlooks the Hamilton Road and the fields beyond Nerston. It is in an area which has a high proportion of young children, and mothers who are at home for most of the day. Allers School was not in full use and St. Leonards Roman Catholic School which was only opened during the period of the survey, was making use of accommodation in the Long Calderwood School. As a result this school was a much greater focal point than the schools nearer the church, the bus routes, the shopping centres and the public houses.

(d) CRAIGSHILL (sample = 146 households)

Places of School Attendance

Households with children at school in Craigshill	35
Households with children at school in another town in the Lothians Regional Survey Area	13
Households with children at school in Edinburgh	2
Households with children at school	45

There are two primary schools in Craigshill, and at the time of the survey most of the children in Craigshill West and Almond West attended the Riverside School in Almond West, while Letham School served the eastern side of the district.

Reasons for Attendance at Schools Away from Craigshill

Religion	35 households
Private schools	1 "
No school nearer (post-primary)	7 "
Other reasons	1 "
No. of households	14

Most of the children of post-primary age travel on a school bus to West Calder. In the sample, the only household with children attending private schools is in Almond South.

The proportion of Craigshill houses with school children is only 31%; and from 24% of the households children attend

one of the local schools. All Roman Catholic children wishing to attend church schools must go to West Calder or elsewhere.

Night Classes Attended by Craigshill Residents

	Vocational or Academic	Non- vocational
Craigshill District	5	18
Other district	4	2
Edinburgh	3	-
Elsewhere	4	4
No. of households	13	24

Interviewees commonly said that they would like to attend adult education classes next year. They had not been able to go to the 1967-8 session either because they were spending their leisure time setting up their new home, or because they had not arrived in Livingston until it was too late to enrol for a course. Classes in Craigshill are considered, in several cases, as a means of making new friends, and are attended for this reason rather than for the intrinsic value of the course. Keep fit, country dancing and dress-making classes are among the most popular. Residents go to classes in Bathgate and Edinburgh for more serious studies. Swimming classes in West Calder attract several women from Craigshill, and a mixture of courses conducted in Broxburn, including English, mathematics, physics and keep fit are also attended by people in Livingston. Howden House in a nearby district is used as a meeting place for clubs, some of which conduct their own classes, such as the course in cinephotography.

The Riverside Primary School building acts as an educational and social focus at this stage in the district's development. The building is used by a Youth Club, by a pre-school playgroup and by the Protestant and Roman Catholic Churches for services and meetings. Apart from Letham School which also has a youth wing, it is the only place at present available for meetings and community activities in the district. As a result it is visited by most sections of the society residing in Craigshill.

(e) DEANS (sample = 74 households)Places of School Attendance

Households with children at school in Livingston Station	18
Households with children at school in another town	7
Households with children at school	24

In Deans, 32% of the households have children at school, the majority of the children going to the school in Livingston Station while a new one is being built in Deans South. All of the children at school in the district are able to walk there, and because of the variations in age structure, more children walk to school from Deans South than from nearer at hand. A school bus takes children from seven households in the sample to Bathgate, either to enable them to attend a Roman Catholic School, or to go to a post-primary school.

Night Classes Attended by Deans Residents

	Vocational or Academic	Non- vocational
Deans District	2	4
Edinburgh	2	-
Elsewhere	5	1
No. of households	7	5

There are proportionately more people in Deans South attending adult education classes than there are in the north. In the south 17% of the households, and in the north 4%, have people attending night classes, the most popular being a dressmaking class in Livingston Station.

The location of the school away from Deans South, as well as the presence of a hall and a church in the district, cause the Livingston Station Primary School to be of little significance in the life of the community, compared with Riverside School in Craigshill.

(f) SUMMARY

Within the residential units that have been studied, the facilities provided for education vary from one unit where there is a primary school and a few night classes, to another unit with several schools for Protestants and Roman Catholics, and for primary and post-primary pupils, and with classes for adults wishing to pursue courses of both an academic and non-academic nature. In none of the towns, though, can the school be seen as a major focal point for the whole unit, and nowhere is its location combined with any other focal point.

The schools, shops and church in Woodside are all located quite separately, and the two school buildings in different parts of the precinct hinder the school as a whole from becoming a focal point. In South Parks the central location of the primary school is advantageous to the children in the precinct, but it is a focus of no other major community activity. There is no night school and the children do not even use the playgrounds out of school hours. Like the schools in Woodside, it is away from other community facilities.

The size of Calderwood hinders a school from becoming a single focal point. The school which has become the strongest focus in a local area is Long Calderwood Primary School, in the eastern part of the neighbourhood unit. This school, which can be seen from many parts of the area, is built on land sloping down to the Hamilton Road. The headmaster is energetic and active in the life of the community, and a high proportion of the households in this part have children of primary school age. Furthermore, Roman Catholic children occupied some of the classrooms in Long Calderwood School while St. Leonards School was being built. This has all been conducive to the establishment of a community spirit centred on the school, but it is only in the eastern part of the neighbourhood unit. There are many people in the west of the unit who do not know where Long Calderwood School is. Objections from parents to the movement of children to high schools outside Calderwood, acted as a temporary cohesive factor in the western

part of the neighbourhood unit, but generally the school there has not become a major focal point.

The two districts in Livingston are controlled by separate education authorities. Craigshill is under the jurisdiction of Midlothian County Council and Deans is under the West Lothian County Council. Craigshill children who do not attend local schools normally go to West Calder, although a few of the Roman Catholic pupils go to Bathgate. From Deans the post-primary pupils attend schools in Bathgate. Riverside Primary School in Craigshill, acts as a major focal point in the community. As there are no other facilities in the district, services of an educational, religious and recreational nature are found in this school. In spite of this, several families rely on similar facilities beyond Livingston and consequently have little contact with other Livingston residents.

The function of schools within the residential units differs from one place to another. A school's location, the existence and location of other community facilities, the variety of activities taking place in the school, and the proportion of the population using the school's facilities, affect the extent to which any school becomes a significant place in the life of the community.

CHURCHES

The value of the part played by churches in the provision of social and welfare facilities in the New Towns, in addition to the services normally rendered by the church, has been expressed by journalists, sociologists and the New Town Development Corporations. For worship and recreation the churches have provided a focal point for their members. As specific recreational facilities will be described in Chapter XVI, this section will deal with the distribution of residents according to the location of the churches which they attend, and with other church activities that are relevant in neighbourhood theory.

The answers given to questions about church attendance have been regarded with caution because of the tendency of respondents to give answers that they believe should be given, rather than responses that are strictly accurate. This was evident when respondents gave the name of specific churches, but later declared that they had never actually been to a service in the church. Answers sometimes showed that an attachment or sense of belonging was felt, although the ties were weak. The answers to the question about frequency of attendance were therefore important in interpreting the information about the church attended. An arbitrary frequency of church attendance, of once or more than once a month, has been taken to distinguish the regular from the infrequent church-goers.

Table 15.1 Church attendance of households in the residential units

	<u>Wood-</u> <u>side</u>		<u>South</u> <u>Parks</u>		<u>Calder-</u> <u>wood</u>		<u>Craigs-</u> <u>hill</u>		<u>Deans</u>	
	%		%		%		%		%	
Within the residen- tial unit	53	47.7	25	27.5	142	37.8	65	44.5	44	59.5
Other residential unit	9	8.1	13	14.3	47	12.5	1	0.7	1	1.4
Town centre	1	0.9	2	2.2	36	9.6	-			
Kirkcaldy	2	1.8	-		-		-			
Edinburgh	-		1	1.1	-		5	3.4		
Glasgow	-		1	1.1	12	3.2				
Other town	8	7.2	13	14.3	11	2.9	10	6.8	3	4.1
None	39	35.1	37	40.7	134	35.6	67	45.9	26	35.1
Total no. of households	111		91		376		146		74	

(a) WOODSIDE

The only church in the precinct is St. Margaret's Church of Scotland which serves the East Neighbourhood as far west as Bruce Road, and has a parish membership of 1,350. An average of 300 adults and 100 children are at the church each Sunday morning. In addition 700 children are on the Sunday School register. It is common in the New Towns to

find that children are sent to the nearest Sunday School irrespective of the denomination, while the parents continue to attend their own church. Although the majority of Church of Scotland members worship at St. Margaret's, several who have lived in other parts of Fife, return to their old churches regularly.

In Woodside about 65% of the households claim there are regular church-goers in the family. In the precinct just under half of the householders have some link with St. Margaret's, but only about 25% have members who worship there at least once a month. Nevertheless, this is a relatively high rate of church attendance, and in Woodside this is partly a reflection of the personality and enthusiasm of the minister.

In the north of the precinct 30%, and in the south 43%, of the households have regular church attenders, and of these three-fifths go to St. Margaret's. The distance to the church appears to be the main reason for these differing proportions.

Churches in other parts of Glenrothes, such as the Episcopal Church at the town centre, and the Roman Catholic and Baptist Churches in the Auchmuty Precinct, attract people from about 10% of the households. Whereas a household's association with a church, through attendance at church services, is often weak, membership of church groups may be more significant in creating a sense of community. Most of the groups are for children, although a Women's Guild, a Men's Club, a keep fit class, country dancing and other activities cater for adults in the congregation.

(b) SOUTH PARKS

St. Columba's Church of Scotland in the south-west corner of the area designated for the town centre, serves the West Neighbourhood and the west part of Auchmuty. Situated near the South Street shops, the majority of South Parks residents pass by the church when driving to the town centre. Approximately 60% of the South Parks households have church attenders, and about 27% of the households associate themselves with St. Columba's Church. Only half

of these people go to church as frequently as once a month. Thus, St. Columba's caters for a considerably smaller proportion of the population than does St. Margaret's.

Regular attendance at St. Paul's Roman Catholic and non-conformist churches in Auchmuty, and at the Episcopal Church in the town centre, establishes links with people in other precincts, but the number going to any one of these churches is small. The largest group going out with South Parks are the Roman Catholics who are members of St. Mary's Church in Leslie. This is due to the establishment of the parish boundary whereby South Parks residents come within the Leslie parish. The few people who are members of the Church of Scotland in Leslie, have lived in the area for some years. The sample population shows a denser distribution of Roman Catholics in the south-west of the precinct, and more non-conformists in the east.

Compared with Woodside, more people in South Parks attend churches outside the precinct and beyond the town. However, some Woodside residents are members of churches in various parts of Fife, whereas few people in South Parks go further than Leslie.

(c) CALDERWOOD

Moncreiff Church of Scotland is centrally located at the corner of Maxwellton Road and Calderwood Road, and like most parish churches in the New Towns, it is the centre of a number of activities. Members of this church are found through a large part of the neighbourhood unit. However, the minister considers that the large size of the parish is a handicap to unity. With 1,348 on the Sunday School roll the children have to meet in the schools and unless their parents are members of Moncreiff Church, they sometimes do not know their own church.

People from 38% of the households attend church services within Calderwood. About half of these people go regularly. They include Protestants and Roman Catholics who attend services in Long Calderwood Primary School.

A division exists between those members of the Roman Catholic church in the western part of the unit who go to

St. Bride's, and those in the east who will eventually go to St. Leonard's Church, but at present go to the services in the school.

By allowing for the few households in which people attend more than one church, people in almost 30% of the households go outside Calderwood to church, and over a third of the households have no church ties. Four areas in which there are few regular members of the neighbouring churches, stand out. They include the most recently settled peripheral part of the north-eastern and eastern section of the neighbourhood unit, a central section stretching from south of Capelrig Drive to Drummond Hill and Ayton Drive North, a small area around Boswell Park and Wingate Crescent, and the area south-west of Maxwellton School.

In the south-west are some Roman Catholics who go to St. Bride's near the town centre, and several who attend churches in The Village. Among the people who have lived in East Kilbride for many years, several continue their membership of the old parish church. Adherents of other denominations meet elsewhere in East Kilbride, for example, at the Episcopal Church in The Murray and the Congregational Church in Westwood. Altogether people from 22% of the households attend churches in other neighbourhood units.

Members of churches in Glasgow and other towns have normally maintained links that were established before coming to East Kilbride, or have been made because no church serving a particular denomination exists in East Kilbride. Many of these people attend services and other activities regularly.

Although members of the Church of Scotland and the Roman Catholic Church predominate in Calderwood the fact that the size of the unit hinders the development of a cohesive society among either of the congregations throughout the whole area is the main result of this part of the survey.

community centre. The feeling among church workers is that although people go less and less to church services (46% of the households in Craighill have no connection with any church), the impact of the churches on the community is still important.

(d) CRAIGSHILL

At the time of the survey the churches had been working together in an ecumenical experiment for two and a half years. No church building exists in Craigshill, so both Roman Catholics and Protestants meet in the Riverside School. Hence, at the school on a Sunday morning, at 9.30 a.m. there is an Episcopal Communion in the Assembly Hall and a Roman Catholic Mass in the Youth Wing. At 11 a.m. a parish service for Protestants is conducted in the Assembly Hall and at 11.30 a.m. a second Roman Catholic Mass is celebrated. In total, the survey shows that from 45% of the households people attend these services and about 35% go regularly.

Apart from worshipping in the same building, the members of the various churches have initiated and worked together in a number of community projects. One such project, known as the "Forum", is a weekly meeting of Craigshill residents, on Sundays before the 11 a.m. church service. The aim was to enable people to meet each other, but because of the time at which it is held, it tends to attract church-goers only. The increase in the size of the community has diminished the value of the "Forum". People now feel less personally involved in the growth of the New Town, and the numbers attending have dwindled from more than a hundred to about thirty.

A second project initiated by the churches was the duplication and distribution of "Newsflash", a newsletter of interest to all Craigshill residents. It contains reports on current happenings in the eastern part of Livingston New Town, information about forthcoming events, and general comments. Interviewees frequently made reference to this, and several suggested that the newsletter helped to familiarise them with their new surroundings.

The third big project undertaken by the churches has been the renovation of an old farm house for use as a community centre. The feeling among church workers is that although people go less and less to church services (46% of the households in Craigshill have no connection with any church), the impact of the churches on the community is still important.

Some ties with churches in other towns have been maintained, especially when former homes are visited regularly on Sundays. Nevertheless, on the whole, by working together, the churches in the New Town have been a unifying force. The lack of a church building has been an aid to the ecumenical programme although some interviewees explained that the absence of a church building hindered them from feeling any attachment to the church. Nevertheless, in spite of the lack of a church building or a church hall, the church is playing a part in fostering a sense of cohesion in the district.

(e) DEANS

Some differences between the north and the south of the settlement in Deans have already been discussed. The churches could provide an important link between the two areas, and lessen any resentment among older residents of the newcomers and the changes taking place in the district.

To the people in the north, St. Andrew's Church is a focal point and 60% of the households referred to it as their church. Altogether, people in 44% of the households attend services in Deans once a month or more often. As a contrast, people in half of the households in Deans South attend a local church, but only 28% of them do regularly. A sense of belonging to the church is found among the residents in the north, but this is lacking among many of the Deans South church-goers. Only small numbers attend the Baptist Church services conducted in Howden House and churches in other towns.

Although a small number of Roman Catholics reside in Deans, the dominance of the Protestant groups, particularly in the north, is emphasised by the activities of the Orange Lodge. In Deans, though, the impact of the church through projects carried out on behalf of the community is not as great as in Craigshill, in spite of the high proportion of the people in the community associated with local churches.

Other things being equal, the attraction of the church does not vary within a radius of approximately half a mile, but beyond that, regular church attendance falls away.

(f) SUMMARY

The influence of church activities on the cohesion of the population cannot be quantified. The assumption that the proportion of the population regularly attending a church gives an indication of its influence has not been completely justified, in view of the results of the survey in the two districts of Livingston. In the New Towns, factors affecting attendance and participation in church activities vary from one residential unit to another.

A feeling that one should go to church was evident at several interviews. There is no doubt though that many of the reasons offered for non-attendance at church were simply an effort to find an excuse. However, the difficulties of attending services by men doing shift work cannot be ignored when large numbers are involved since shift work appears to have an influence on the regularity of attendance and participation in activities arranged by churches and other organisations.

Many residents leave the New Towns during the weekends, either to return to their former homes, or to take advantage of the facilities existing in the larger cities. Glasgow in particular attracts East Kilbride residents, and its proximity encourages a regular exodus at weekends. The high level of car ownership in the New Towns also increases the movement out of the residential areas. Attendance at local churches is slightly reduced for these reasons.

The lack of a church building deterred people who associate worship with a particular style of building from attending services in temporary accommodation. Some, therefore, go to churches in nearby towns, while others have ceased to attend any church. There is no doubt that the actual building has some effect on the attitudes of the population.

The personalities and abilities of the clergymen have an effect on the support given to the church and the place it has in the community.

Other things being equal, the attraction of the church does not vary within a radius of approximately half a mile, but beyond that, regular church attendance falls away.

The importance of the part played by the churches in the New Towns appears to be considerably greater in the early stages of development when people are wanting to identify themselves with the New Towns and to make friends. As other facilities are established the importance of the churches becomes relatively less.

Reginald Isaacs has stated that a better psychological outlook and increased social values can be promoted by participation in community life, which can be encouraged by the provision of well organized cultural and recreational facilities and activities (Isaacs, 1945). Most people have more leisure time than they would have had in an earlier age, and it is likely that even more time will be available to pursue recreational activities in the future. Thus the New Towns have had to take likely future conditions into account, as well as allowing for shifts in society that will cause changes in the kind and quality of recreation that people seek.

G. Brooks Taylor has commented on the lack of comprehensive plans in which all facets of recreation are surveyed, and the omission of steps to develop a programme of facilities jointly, by the public authorities concerned (Taylor, 1967). This lack of planning may be the reason for the small number in each town using the existing facilities.

The location of recreational facilities in the residential units has already been described. In this section, the use of outdoor facilities, including playing fields and children's playgrounds, and other facilities for physical recreation will be considered as one facet of recreation. A second section will be devoted to a short review of participation in clubs, societies and other organisations. The third part of the chapter is concerned with the demand for commercial entertainment.

FACILITIES FOR PHYSICAL RECREATION CHAPTER XVI

RECREATION IN THE NEW TOWNS

The majority of sociologists and planners admit that ideally everyone should have the opportunity to find the best and most satisfying use of his leisure time. Reginald Isaacs has stated that a better psychological outlook and increased social values can be promoted by participation in community life, which can be encouraged by the provision of well organized cultural and recreational facilities and activities (Isaacs, 1945). Most people have more leisure time than they would have had in an earlier age, and it is likely that even more time will be available to pursue recreational activities in the future. Thus the New Towns have had to take likely future conditions into account, as well as allowing for shifts in society that will cause changes in the kind and quality of recreation that people seek.

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FACILITIES FOR PHYSICAL RECREATION

The Wolfenden Committee on Sport wrote, with reference to facilities for games and sports, "There must not only be an adequate acreage of grounds; they must also be in the right place ... The 'right' places are the places where those who want to use them have easy access to them" (Central Council of Physical Recreation, 1960, p.32).

A modern practice is to design access to the open spaces by linking them with the pedestrian routes through the residential units. The housing layouts with pedestrian-vehicular segregation allow for a landscape continuity from the private dwelling to the communal courts of the residential areas, up to the scale of the larger park, without any interruption by roads. Presumably this maximizes accessibility. If, therefore, little use is made of the open spaces, it must be either because the distances for walking are too long, or the activities do not suit the needs of the population, or the people do not want to use the facilities provided. Whatever the reasons, the statement in the foreword of their book by R. Sudell and D. Tennyson Waters is still applicable, "Neither playgrounds nor playing fields can be used to full advantage unless they are carefully sited in convenient and safe relation to the homes of the children, adolescents, or adults who need them, or in the case of the latter, it may be to their place of employment ... The provision of playing fields and playgrounds should be an integral part of the town map and plans for housing schemes" (Sudell and Waters, 1957).

Because no Development Corporation is in a position to provide each neighbourhood unit with all the facilities that could be used, facilities that are flexible, accessible and attractive must be planned for maximum use to be made of them. The information gathered during the interviews shows the extent of use and the influence of location on their use. The figures do not include informal recreational activities such as walking in the parks or the countryside, or camping.

(a) WOODSIDE

Activities in the field of physical recreation in Woodside, are limited to football on the Carleton playing field, badminton in St. Margaret's Church hall, and country dancing at Carleton Primary School. Residents must go elsewhere for other forms of physical recreation.

Table 16.1 Participation of Woodside residents in sports
(Total households = 111)

	<u>Hus-</u> <u>bands</u>	<u>Wives</u>	<u>Girls</u> <u>under</u> <u>16</u>	<u>Boys</u> <u>under</u> <u>16</u>	<u>Others</u>
More than once a week	4	1	2	2	1
Weekly	7	-	3	1	1
Fortnightly	2	1	-	-	-
Monthly	-	-	-	-	-
Less than once a month	1	-	-	-	-
Households participating	14	2	5	3	2
Percentage of total households	12.6	1.8	4.5	2.7	1.8

In Woodside the people who participate in sporting activities are scattered throughout the precinct. Of the 14 male householders the only one playing locally is in the Badminton Club at St. Margaret's Church. He also plays tennis at Dovecot Park in the adjacent precinct. Two men play bowls at Dovecot Park, one plays football at the town centre field, and four play golf on the new course at Goat-milk Hill. Similar activities are carried on elsewhere, for example, golf is played at Thornton, and bowls at Coaltown of Balgonie and Methil. A small number of people are away from Glenrothes regularly and frequently for sports, such as boating at Burntisland and fishing expeditions at the weekends, but this is unlikely to have any effect on the development of the community when the numbers involved are so small. The two women who play bowls go to the town centre, to Kirkcaldy and to Coaltown of Balgonie. The girls who are members of clubs and teams go to various parts of Glenrothes, for example, to play tennis at Dovecot Park,

hockey and badminton at Glenrothes High School, to do gymnastics at Glenwood School and country dancing at Carleton School. The only girl leaving the town goes horse riding in Thornton. The boys play football on the Carleton playing field and at the town centre, and one travels several times a week, to boxing in Kirkcaldy.

Not only are the total numbers of people participating in any form of organised sport small, but also the proportions in each age group are very low. The number who play within Woodside is so small that it can have little effect on community spirit. In fact, the under-utilisation of local facilities within Glenrothes led the Fife Education Department to organize tennis coaching at Dovecot Park for periods of six weeks in 1966 and 1967 so that greater use would be encouraged.

Children's play areas are normally near their homes. Table 16.2 illustrates the extent to which the facilities provided for their enjoyment are utilised.

Table 16.2 Children's play areas in Woodside (Total households = 111)

	Age <u>0-4</u>	Age <u>5-7</u>	Age <u>8-10</u>	Age <u>10+</u>
Within the home property, private garden, at the door, on the steps	19	12	8	1
On the footpath, at the gate, on the stairway	2	-	1	-
Concreted or asphalted areas near garages and courtyards	-	2	-	1
On the road, in culs-de-sac, on grass verges	5	9	13	6
Swing parks, play areas within housing developments	3	5	5	1
Other parks	4	7	8	5
Playing fields	-	1	1	7
Other parts of the residential unit	-	2	1	-
Beyond the residential unit	-	-	-	1
Everywhere with bicycle	-	-	-	3
Percentage of householders to whom the question was not applicable	78.4%	73.9%	75.7%	78.4%

Most of the pre-school children play at home, but parks and fields are used by the few who live near them. The most frequented areas outside the home, of the 5 to 10 year group, are the roads and verges. Nearly all of the children in this age group in the area of Fife County Council housing, play on the roads, while a few play on the Carleton playing field during finer weather. The older children play in a variety of places further away from their homes, especially those who attend schools in other precincts. Children who have bicycles and are more mobile are also likely to spend time away from the locality of the home.

The results show that the play areas and swing parks set aside for use by young children are not as popular as the roadside. These play areas are used mainly by children in the immediate vicinity. At some interviews parents who complained of the danger of broken play equipment, the lack of supervision, and the danger of Bighty Burn, said that they forbid their children from playing in these particular areas.

(b) SOUTH PARKS

Table 16.3 Participation of South Parks residents in sports
(Total households = 91)

	Hus- bands	Wives	Girls under 16	Boys under 16	Others
More than once a week	4	1	-	3	-
Weekly	4	1	1	1	1
Fortnightly	3	-	-	-	-
Monthly	-	-	-	-	-
Less than once a month	1	-	-	-	-
Households participating	12	2	1	4	1
Percentage of total households	13.2%	2.2%	1.1%	4.4%	1.1%

Though the number in the precinct taking part in sporting activities is small, sportsmen are found dispersed throughout South Parks. No facilities for physical recreation

outside the schools are used in South Parks. A few men play golf in Glenrothes, on the new course at Goatmilk Hill. This course and the golf course at Thornton are the two most likely sporting facilities where residents from both precincts will come into contact with each other. The golf courses at Ladybank and Kingskettle are both frequently used by people in South Parks. Visits are also made to Kirkcaldy for curling, skating and swimming. Thus, compared with South Parks residents who leave Glenrothes for most of their sporting activities, the majority of Woodside residents make use of facilities within Glenrothes, at the town centre, in Auchmuty, and in Woodside itself.

Table 16.4 Children's play areas in South Parks (Total households = 91)

	Age 0-4	Age 5-7	Age 8-10	Age 10+
Within the home property, private garden, at the door, on the steps	20	6	4	-
On the footpath, at the gate, on the stairway	3	1	-	-
Concreted or asphalted areas near garages and courtyards	-	-	-	1
On the road, in culs-de-sac, on grass verges	13	7	3	-
Swing parks, play areas within housing developments	11	10	9	3
Other parks	-	-	2	2
Playing fields	-	2	3	2
School grounds	-	-	-	-
Other parts of the residential unit	-	-	-	-
Beyond the residential unit	-	-	1	1
Bicycle, in the unit and beyond	-	-	-	2
Percentage of householders to whom the question was not applicable	59.3%	76.9%	81.3%	90.1%

Among the children's play areas, a difference between the south-west and the east of the precinct can be discerned. In the south-west where there is a higher proportion of the younger groups, they play on their own property;

while in the east, where the children are slightly older, they play on the road or the roadside. The swing parks are used by children in the immediate vicinity, but parents complain about the location not far from the road, particularly since several children have been injured after running from one swing park onto the road. Several interviewees made comments about the use of the road as a playground and the danger of driving when so many children dart across the road. The parks and the open space to the north of the precinct are used by those living in adjacent housing areas and the football field near the town centre is used by boys on the east side of the precinct. Only a few children under the age of eleven years go further than about 250 yards from their homes, and even those who are older, normally stay fairly near their homes unless they have bicycles. As a result, except at school, South Parks children have little contact with children in other parts of the precinct, let alone in other precincts.

(c) CALDERWOOD

Table 16.5 Participation of Calderwood residents in sports
(Total households - 376)

	Hus- bands	Wives	Girls under 16	Boys under 16	Others
More than once a week	27	4	9	10	12
Weekly	21	8	6	13	5
Fortnightly	8	3	1	5	1
Monthly	7	1	1	1	2
Less than once a month	7	7	3	-	1
Households participating	70	23	20	29	21
Percentage of total households	18.6%	6.1%	5.3%	13.0%	10.6%

The East Kilbride Sports' Club was only formed a short time prior to the survey so members were not at that time participating in physical recreation. The only organised and semi-organised games played within the neighbourhood unit are at the Whitemoss Recreation Area where a few families

play bowls and children from nearby, play football. This area is frequented by people living near at hand but by very few in the northern end of the town. Others in the unit follow the same types of sport in Glasgow, Rutherglen and elsewhere. Some of the Youth Clubs, for example, the Youth Club at Maxwellton School, have athletic sections which involve the members in various sporting activities.

Golf is one of the more popular sports among residents. Some are members of the East Kilbride Golf Club, but many have retained membership elsewhere and travel regularly to places like Moffat, Cambuslang, Edinburgh and even further. The swimming pool in East Kilbride was opened during the period of the survey, so for the purposes of this survey figures are distorted because the answers given during the first part of the survey are not necessarily the same as would have been given two months later. Young people were travelling to baths in Wishaw, Hamilton and Glasgow as many as three times a week, but will probably attend lessons and training sessions at the Dollan Pool now. After the opening of the pool there was an initial wave of enthusiasm and large numbers were using the new facilities.

Of the neighbourhood units in East Kilbride, The Murray has facilities for people who participate in athletics and cycling, while badminton is played at the Episcopal Church hall. Very few attend sporting activities in other neighbourhood units.

Sports' teams and activities are arranged by a few of the firms. The National Engineering Laboratory Ski Club is one example. A few men belong to teams at their work in Paisley, Glasgow and Cambuslang. Membership of these is unlikely to have any positive effect on the feeling of community in the residential unit.

Physical recreation therefore provides little opportunity for contact with people living in other residential units or in other parts of a single unit, particularly when the very small numbers of people participating are taken into account. Some of the clubs to which Calderwood residents belong are the Amateur Athletic Club, Amateur Boxing Club, Angling Club, Badminton League, Bowling Club, Curling Club,

Golf Club, Velo Cycling Club, Home (Pigeon) Club, and Ladies' Hockey Club.

Thus, adults pursue activities in physical recreation mainly outwith the residential unit, but children stay within Calderwood, and chiefly in an area near the home.

Table 16.6 Children's play areas in Calderwood (Total households = 376)

	Age <u>0-4</u>	Age <u>5-7</u>	Age <u>8-10</u>	Age <u>11+</u>
Within the home property, private garden, at the door, on the steps	65	33	17	9
On the footpath, at the gate, on the stairway	10	9	6	2
Concreted or asphalted areas near garages and courtyards	4	4	7	5
On the road, in culs-de-sac, on grass verges	28	41	32	17
Swing parks, play areas within housing developments	25	34	28	12
Other parks	3	4	6	7
Playing fields	2	3	22	19
School grounds	-	-	4	1
Other parts of the residential unit	-	-	3	8
Beyond the residential unit	-	-	-	-
Bicycle	-	3	9	6
Percentage of householders to whom the question was not applicable	72.3%	76.3%	76.1%	82.7%

The location of facilities has a bearing on the play habits of the younger children and this leads to differences in various sections of the unit. In the south-west nearly all the pre-school children play within their homes or on their own property. In the central area about half remain on their own land, about a quarter play on the road and on areas immediately adjacent to the road, and most of the rest play on the footpaths. Children in the two younger age groups in the north-east, gather on the grassy slopes and at the swings in the vicinity of Salisbury and Stratford. Although the five to seven year olds play over a slightly

wider area the most important places for playing are the roads. Skipping, hop-scotch and marbles are all activities needing a reasonably flat surface, so the road which is in view of the house, provides the answer. Most planners view this use of roads with disdain, but Jane Jacobs believes that the use of the footpaths alongside the roads (as opposed to the roads themselves) is an ideal place for children to play because they are under the surveillance of a high numerical ratio of adults, compared with children on a public playground (Jacobs, 1962).

Football fields attract boys in the eight to ten year group only if nearby, so more use of these fields is made by boys living near Whitemoss, than elsewhere. However, it seems that boys in the group over ten years, will travel from almost anywhere in the unit, either to football fields, or to play with friends in other areas, or just to "knock about".

(d) CRAIGSHILL

Among the principles involved in the provision of recreational facilities suggested by the Special Committee on Recreation set up by the Working Party on Recreation for the Lothians Regional Survey and Plan, is written,

"Because of the rapid changes expected to take place in the population structure of the Region, e.g. changing jobs, places of residence and social affiliations, the recreation and community facilities will be used daily to facilitate the integration of families into unfamiliar surroundings. Recreation and community facilities must be provided, but provided in an accessible and inviting way, to serve as social stabilizers in an area which will be characterized by accelerated immigration" (Scottish Development Department, Midlothian and West Lothian Joint Planning Committee, 1966, vol.2, p.183).

The above statement implies that the early provision of facilities for physical recreation is recommended for social reasons, even if it is not justified on economic grounds. At this stage in Craigshill's development there is little evidence of the existing facilities acting as

social stabilizers, even though a higher proportion of the population participates in organized and semi-organized physical recreation than in the other Scottish New Towns. The larger number of participants is explained partly by the youthfulness and the mobility of the population.

Table 16.7 Participation of Craigshill residents in sports
(Total households = 146)

	<u>Hus-</u> <u>bands</u>	<u>Wives</u>	<u>Girls</u> <u>under</u> <u>16</u>	<u>Boys</u> <u>under</u> <u>16</u>	<u>Others</u>
More than once a week	12	2	-	-	-
Weekly	14	5	1	-	-
Fortnightly	-	2	1	2	-
Monthly	5	1	-	-	-
Less than once a month	2	1	-	2	-
Households participating	33	11	2	5	-
Percentage of total house- holds	22.6	7.5	1.4	3.4	

Within Craigshill badminton is played in Riverside School by two families in the sample, a few men participate in a rugby training programme at Letham School and the field near Cousland Road, and a few people fish in the River Almond. Most people in Craigshill go much further away, for example, to play golf on courses at Harburn, Dalmahoy, Uphall and Edinburgh, to play football, rugby and cricket and other team games in Edinburgh, to swim in Bathgate, to bowl at Linburn, to skate in Glasgow or Edinburgh, and to climb and carry out other expeditionary sports in the Highlands. As in the other residential units, men leave their homes for these activities more frequently than their wives. Craigshill residents do not make use of facilities in Livingston Station, and few go to Pumpherston for this purpose. A few men play for teams organised by the Cameron Iron Works, but most of these teams play irregularly.

It is significant that more community spirit appears to have developed among members of the Livingston New Town Celtic Supporters Club and the New Livingston Rangers

Supporters Club than among playing members of any sports club.

Table 16.8 Children's play areas in Craigshill (Total households = 146)

	Age <u>0-4</u>	Age <u>5-7</u>	Age <u>8-10</u>	Age <u>11+</u>
Within the home property, private garden, at the door, on the steps	31	11	3	-
On the footpath, at the gate, on the stairway	26	19	12	5
Concreted or asphalted areas near garages and courtyards	5	7	3	1
On the road, in culs-de-sac, on grass verges	3	8	4	2
Swing parks, play areas within housing developments	5	6	3	1
Other parks	-	-	-	-
Playing fields	-	-	3	3
School grounds	-	1	1	-
Other parts of the residential unit	1	-	-	-
Beyond the residential unit	-	-	-	2
Bicycle	1	2	2	1
Percentage of householders to whom the question was not applicable	63.7%	76.7%	88.4%	95.2%

The majority of pre-school children in Craigshill stay near their homes and play either in the garden, or on terraces, or footpaths. A few of them play on the tar-sealing, or at nearby play parks. Children of five to seven years also play on the footpaths near their homes, and on the grass between the buildings, especially in Craigshill West and Almond West. The play park in Almond West attracts a large number in this age group. In the summer the play park also attracts a large number in this age group. In the summer the play park also serves as a meeting place for the mothers while watching their young children. Complaints about the hardness of the surface of the park, were made during the interviews, but this fault does not seem to limit its use. The footpaths leading from most houses to the shop in the cell pass by the playground so people are never far away.

Its popularity on fine days makes it the noisiest and most lively part of Almond West. The older children in Craighill also play in the vicinity, but also play as far away as the school and other parts of the same cell. Few children go more than about 250 yards from their homes, that is, they tend to keep within the individual cells.

Wishaw, and the other in the sample goes boating from (e) DEANS weekly.

Table 16.9 Participation of Deans residents in sports
(Total households = 74)

	Hus- bands	Wives	Girls under 16	Boys under 16	Others
More than once a week	7	-	-	-	-
Weekly	8	4	-	1	3
Fortnightly	1	-	-	-	-
Monthly	-	1	-	-	-
Less than once a month	1	-	-	-	-
Households participating	16	6	-	1	3
Percentage of total households	21.6	8.1	-	1.4	4.1

Adults in Deans South more commonly participate in sport than adults in the north of Deans, probably partly as a result of difference in ages and cultural backgrounds. In Deans South about 28% of the men take part in some sport, while in the north the figure is 22%. Of greater importance is the location of the sports that the people in these two areas follow. In the north most of those playing any sport play either football or bowls in Livingston Station. Only two men in the Deans South sample play a game locally, and this is badminton in the village hall. People in both parts of the district play golf, but they go to a variety of courses. Uphall is the only course used by people from both areas. Residents from Deans South play games in a number of places, many of which are ties existing before they moved to Livingston. Examples include football at Bathgate, golf in Stirling and badminton at Seafield.

The six women in Deans South who play a sport once a month or more often, all play badminton, five of them in Livingston Station and one in Seafield. The location of badminton facilities near the residential unit has caused the game to become popular here. In the north of Deans one woman plays indoor bowls two or three times a year in Wishaw, and the other in the sample goes boating from Queensferry weekly.

These figures indicate the small role played by sport in promoting contacts within Deans. The Badminton Club caters for the younger, more active people in Deans South, while bowling appeals to the older, less active residents in the north. The football club in Livingston Station which had formerly been important to younger men in the north is declining since the construction of new buildings has forced them to move from their old premises and to find a new field.

Table 16.10 Children's play areas in Deans

	Age <u>0-4</u>	Age <u>5-7</u>	Age <u>8-10</u>	Age <u>11+</u>
Within the home property, private garden, at the door, on steps	7	7	2	1
On the footpath, at the gate, on the stairway	3	4	2	1
Concreted or asphalted areas near garages and courtyards	-	-	-	1
On the road, in culs-de-sac, on grass verges	3	3	3	1
Swing parks, play areas, within housing developments	8	8	6	6
Other parks	-	-	-	1
Other parts of the residential unit	-	-	-	1
Percentage of householders to whom the question was not applicable	79.7%	82.4%	89.2%	87.8%

Few children live in the north, compared with Deans South. The majority of children in Deans South play at the swing parks which have proved popular with all age groups, and even with teenage boys who dominate the equipment

erected for younger children. Consequently breakages and damages are caused by excessive weights and careless handling.

In the north, more children play on the roads than in the south. They also use the playground near Broomyknowe Drive, so once outside school there seems to be little contact between the two groups. Thus from the point of view of physical recreation the two areas show differences among both child and adult groups using sports facilities and play areas.

(f) SUMMARY

The open spaces and play areas have been an important element in the New Town plans. In the Scottish New Towns, some significant features have been observed.

1. A very small proportion of adults participate in organized or semi-organized sport, although those who do, play at least once a fortnight.

2. Men are more often members of sports' clubs, than women. Women tend to follow sports for which there is provision locally, while men go further afield.

3. At the present stage of New Town development, many adults travel to use facilities existing elsewhere rather than use what has been provided locally.

4. Local facilities often attract people who enjoy some form of physical activity and an opportunity to meet others, rather than serious sportsmen. For example, the recreation of the residents in Deans is influenced by the existence of facilities for badminton and bowls.

5. Links with sports' clubs that were established prior to settlement in the New Towns, are often retained in spite of travelling distances involved.

6. Apart from the location of open spaces and sports' facilities in the town's design, the time that they are established is important. Habits formed during an early stage of settlement tend to be perpetuated. Eager sportsmen do not readily change their clubs and their activities to make use of new facilities, in spite of easier access and greater convenience.

7. In the older residential units more use is made of the facilities nearby. The differing levels of car ownership, the age of the residents and the presence of suitable recreational facilities in the unit all have some relationship to the location of facilities used by people in any one unit.

8. Although several people in one residential unit may follow the same sport, it is seldom they do so in the same place. For example, people in Craigshill who swim frequently, go to Polbeth, Bathgate and Edinburgh. Distance is only one important factor.

9. A small number of enthusiasts for a sport which has facilities nearby can generate a community interest, as happens in the northern part of Deans with the bowling club.

10. Little connection exists between the location of recreational activities and the place of work, or the area of shopping.

11. Children under the age of eleven years normally play informally within about 300 yards of their homes. For children over the age of eleven years, distance is of less significance in determining play places.

12. The roads in residential units are commonly used as play areas, especially when no play area exists nearby.

13. In areas of pedestrian-vehicular segregation, foot-paths, spaces in front of blocks of garages and play areas, are popular.

14. The extent to which play parks are utilised depends on the ages of the children in the area, the attraction of other spaces, the opportunity to play with balls which are normally not permitted near the dwellings, and the provision of seats for parents who wish to watch young children while they are at the parks.

Few people participate in physical recreation either because there are no facilities nearby, or because the facilities are not easily accessible, or because there is insufficient interest in the activities. The keen sportsmen move too far away and to too many different places to have much positive impact on the community spirit in the town in the early stages of development.

MEMBERSHIP OF GROUPS AND ORGANISATIONS

Opportunities for people to follow different religious doctrines, educational disciplines and leisure time pursuits are desirable for the well-being of the population. Lack of plans to provide a variety of these opportunities has resulted in a random development in different parts of the New Towns, and at varying stages in their growth, according to the abilities and wishes of philanthropic and interest groups. Consequently, dozens of organizations and activities are found in the New Towns, some with very few members. Yet, residents say that there is nothing to do, no entertainment, and nothing for young people. These complaints are symptomatic of people who feel no attachment to the community. It is acknowledged that it takes more than clubs and groups to create a community. Figures given in the tables in this section show that a relatively small proportion of the adult population belong to groups. It is significant that in each New Town, among the people who belong to clubs and groups which meet frequently in the town, the majority stated that they liked living in their particular residential unit.*

Other parts of town	4	2	1	1	-	7.2
Elsewhere	1	1	-	-	-	1.8
Boys under 16 years						
Woodside	5	12	-	-	-	15.3
Other parts of town	1	2	-	-	-	2.7
Elsewhere	2	-	-	-	-	3.8
Others						
Woodside	6	4	-	1	-	11.7
Other parts of town	4	2	-	1	-	6.3
Elsewhere	3	3	1	-	1	7.2

Glenrothes, like the other New Towns, has a large number

* Hans M. Wirz, in the Department of Social Studies, University of Edinburgh, is currently doing research on, "A Comparative Study of Social Organizations in Three Scottish New Towns". Mr. Wirz's results illustrate the part played by selected organizations in each of the towns covered in this survey.

(a) WOODSIDE

Table 16.11 Attendance at meetings by Woodside residents
(Total households = 111)

A = More than once a week
B = Weekly
C = Fortnightly
D = Monthly
E = Less than once a month

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>% of Households</u>
Husbands						
Woodside	7	4	2	1	1	13.5
Other parts of town	1	-	3	1	-	4.5
Elsewhere	1	5	1	1	4	10.8
Wives						
Woodside	7	10	4	3	1	22.5
Other parts of town	-	5	1	-	-	5.4
Elsewhere	1	1	-	4	2	7.2
Girls under 16 years						
Woodside	6	10	-	-	-	14.4
Other parts of town	4	2	1	1	-	7.2
Elsewhere	1	1	-	-	-	1.8
Boys under 16 years						
Woodside	5	12	-	-	-	15.3
Other parts of town	1	2	-	-	-	2.7
Elsewhere	2	-	-	-	-	1.8
Others						
Woodside	8	4	-	1	-	11.7
Other parts of town	4	2	-	1	-	6.3
Elsewhere	3	3	1	-	1	7.2

Glenrothes, like the other New Towns, has a large number of organisations found in various parts of the town. In Woodside, membership of groups that meet within the precinct outnumbers the membership of groups who meet outside the town. However, more of the men and women over 15 years leave Woodside for leisure time activities than remain in

the precinct (Table 16.11). Most of the men who attend activities locally, live in the area of Fife County Council houses east of Woodside Road. They go to a variety of places including the British Legion in Balbirnie Road, the Bridge Club in the Community Hall, the Men's Club at St. Margaret's Church, and the Art Club in Alburne Park. Attendance at meeting is normally at least once in every two weeks. Other parts of the town attract only small numbers. A Masonic Lodge meets at C.I.S.W.O. but several men attend meetings in other parts of Fife. Workers at Tullis Russell participate in occasional social activities held by the firm, but its most enthusiastic group is a brass band.

Women more frequently belong to clubs and societies that meet nearby, and they belong to fewer groups outside the precinct. The areas around Wells Road and Alburne Park, with the higher socio-economic groups, have a larger proportion of club members than other parts of the precinct. A Women's Guild meets at St. Margaret's Church, and in the Woodside Community Hall meetings of a Women's Club, the Floral Art Club and the Film Society are held. Old folk have their own rooms at Wayside Cottage. Except for the Markinch Opera Group, membership of groups outside Glenrothes has continued from previous residence in the area, or because a transfer has been made to another section of the same organization to which the women belonged before moving to the New Town. For example, one woman belongs to a branch of the Women's Rural Institute in Scotland Well, and members of the Eastern Star attend meetings in Thornton and Buckhaven. The Markinch Co-operative Social Club attracts some of the older members of Woodside. Kirkcaldy has little pull for this type of recreational activity, but the Kirkcaldy Travel Club has a few Glenrothes members. Welfare work such as Meals on Wheels is carried out in various parts of Glenrothes, and St. Andrew's Ambulance work, in other towns.

Youth Clubs help to occupy the leisure time of many in the teenage groups. The Preston Youth Club on the road leading to Alburne Park provides entertainment for some of the Woodside girls and boys, but the Youth Clubs in

South Parks, Leslie and Coaltown of Balgonie seem to be equally popular. Nevertheless higher proportions of boys and girls belong to groups within Woodside, than away from the precinct. Some of them belong to Boys' Brigade, Girls Guildry and the Youth Fellowship at St. Margaret's Church. Girl Guides, Cubs and Brownies meet at both St. Margaret's Church and Carleton School. A Scout Hall stands near the Woodside Service Industry site. The Woodside Community Hall is used by a School of Dancing. In spite of the existence of these and other activities in Woodside, several young people attend meetings in other precincts. Roman Catholic Guides, Cubs and Brownies meet at St. Paul's Roman Catholic School in Rimbleton, Cubs meet at Warout School, Scouts at C.I.S.W.O. and Guides in Markinch. Dancing classes are attended in both the town centre and Kirkcaldy.

The distribution of people belonging to various groups is generally dispersed throughout the precinct. Within Woodside itself, there appears to be no relationship between the location of the meeting places and the homes of the members. However, women and children tend more than men to belong to organizations that meet within the precinct. The main meeting places in Woodside are St. Margaret's Church, the Woodside Community Hall and Carleton School. Religious affiliation and membership of groups prior to going to Glenrothes determines the activities of some people in the community, but contact with members or others interested in an activity was the main reason given for a person joining an organization.

(b) SOUTH PARKS

The characteristics of club membership in Woodside are not repeated in South Parks. In Woodside, for example, 13% of the male householders belong to organisations in the precinct, and approximately the same number belong to groups beyond the unit. In South Parks only 5% belong to organisations within the unit, but 26% go elsewhere. Nor do the proportions of women in the two precincts show similar features. In Woodside 22% of the women go to local

meetings compared with 9% in South Parks. South Parks residents are more often members of organisations meeting at the town centre or other precincts.

Apart from the Ex-Service Club that meets in Napier Road, the Horticultural Society that meets in the South Parks Farmhouse and the elders of the church who meet within the precinct, there are no other local organisations attended by men. They belong to the Rotary Club and Lodges meeting in the town centre as well as other towns in Fife such as Markinch, Leslie, Cupar and Kelty. Members of a Drama Society in Leslie and Model Railway Club in Thornton also go away from South Parks for some of their leisure. Men and women belong to the social club at C.I.S.W.O. and belong to groups associated with churches at the town centre and in other precincts. Associated Electrical Industries have a social club that occasionally arranges functions for its members. The Markinch Operatic Group has members who live in South Parks as well as in the other precincts.

For women's organisations, the two chief meeting places in South Parks are the Farmhouse where the Women's Guild, the Ladies' Social Club and the Trefoil Guild meet, and St. Columba's Church where another Women's Guild and Country Dancing Club are found. This lack of variety in the activities helps to account for the small number of participants. (Table 16.12.) The counter-attractions include the groups organized by the Y.W.C.A. such as the Young Wives' Club, and meetings for old and young people at St. Luke's Church in the town centre. Women from South Parks belong to organisations in other precincts, such as the Film Society and the Floral Art Club in Woodside, a Women's Guild attached to the church in Auchmuty, and attend Scottish Nationalist Party meetings in Macedonia.

Cubs and Scouts meet in the Farmhouse. As in Woodside, a number of children pursue group activities outside South Parks, for example, Girls' Brigade in Auchmuty, Cubs at St. Paul's School, Boys' Brigade at Warriston School, and a Youth Club at Glenwood Junior High School. Very few go beyond Glenrothes.

Table 16.12 Attendance at meetings by South Parks residents
(Total households = 91)

A = More than once a week
 B = Weekly
 C = Fortnightly
 D = Monthly
 E = Less than once a month

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>% of Households</u>
Husbands						
South Parks	1	1	-	2	1	5.5
Other parts of town	-	4	2	6	1	14.3
Elsewhere	1	1	2	6	1	12.1
Wives						
South Parks	1	4	-	3	-	8.8
Other parts of town	-	6	2	6	1	16.5
Elsewhere	1	-	-	1	1	4.4
Girls under 16 years						
South Parks	1	5	-	-	-	6.6
Other parts of town	-	4	2	-	-	6.6
Elsewhere	-	1	-	-	-	1.1
Boys under 16 years						
South Parks	1	10	-	-	-	12.1
Other parts of town	-	6	-	-	-	6.6
Elsewhere	2	-	-	-	-	2.2
Others						
South Parks	-	-	-	-	-	
Other parts of town	1	-	-	-	-	1.1
Elsewhere	1	-	-	-	-	1.1

For young people activities are organized by the Church. A playgroup, Shipmates, Brownies and Guides meet there. Cubs and Scouts meet in the Farmhouse. As in Woodside, a number of children pursue group activities outside South Parks, for example, Girls' Brigade in Auchmuty, Cubs at St. Paul's School, Boys' Brigade at Warout School, and a Youth Club at Glenwood Junior High School. Very few go beyond Glenrothes.

Most adults who belong to an organisation or group, attend meetings away from South Parks because of the limited opportunities to pursue their particular interests within their own precinct. The majority attend meetings in other parts of the town and consequently have the chance to meet folk in other precincts as well as their own. This could result in South Parks residents feeling as if they are part of the whole town, rather than just a precinct. Instead, however, the feeling is of belonging to an interest group, rather than to a community. People do not attend meetings simply because they offer something to do nearby. Only a few of these leisure time activities are more than five miles from the home, yet no single activity beyond South Parks occupies a large number of South Parks residents, nor a cluster of people in one section of the precinct. In this unit, among the adults, organisations and clubs contribute very little to interaction among residents.

Girls under 16 years

Calderwood	6	35	3	1	7	11.7
Other parts of town	7	17	1	2	-	6.4
Elsewhere	7	5	-	-	-	1.3

Boys under 16 years

Calderwood	8	21	-	-	-	9.6
Other parts of town	4	11	-	-	-	4.0
Elsewhere	-	-	-	-	-	-

Others

Calderwood	3	6	1	3	-	3.7
Other parts of town	1	8	-	-	-	2.6
Elsewhere	-	-	-	-	-	-

Similar types of social activities are found in both Glenrothes and East Kilbride. In Calderwood about 5% of the male householders attend meetings of groups and organisations within the neighbourhood unit. Examples of such groups are the Chess Club at Calderwood Inn, the branch of the Scottish Nationalist Party at Hunter High School, the Men's Club at Moncreiff Church, the Rangers Supporters'

(c) CALDERWOOD

Table 16.13 Attendance at meetings by Calderwood residents
(Total households = 376)

A = More than once a week
 B = Weekly
 C = Fortnightly
 D = Monthly
 E = Less than once a month

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>% of Households</u>
Husbands						
Calderwood	1	12	-	5	2	5.3
Other parts of town	8	14	6	13	9	13.3
Elsewhere	7	11	5	12	18	14.1
Wives						
Calderwood	1	31	1	5	2	10.6
Other parts of town	6	10	5	11	5	9.8
Elsewhere	1	7	1	1	2	2.7
Girls under 16 years						
Calderwood	6	35	3	1	7	11.7
Other parts of town	7	17	1	2	-	6.4
Elsewhere	-	5	-	-	-	1.3
Boys under 16 years						
Calderwood	8	27	-	-	-	9.6
Other parts of town	4	11	-	-	-	4.0
Elsewhere	-	-	-	-	-	-
Others						
Calderwood	3	6	3	2	-	3.7
Other parts of town	1	8	-	-	1	2.6
Elsewhere	-	-	-	-	-	-

Similar types of social activities are found in both Glenrothes and East Kilbride. In Calderwood about 5% of the male householders attend meetings of groups and organisations within the neighbourhood unit. Examples of such groups are the Chess Club at Calderwood Inn, the branch of the Scottish Nationalist Party at Hunter High School, the Men's Club at Moncreiff Church, the Rangers Supporters'

Club at Hunter Primary School, and the St. Vincent de Paul Society at Long Calderwood School. Activities in other parts of East Kilbride include the Light Opera Group at Duncanrig School, the Highlanders' Association in Westwood, a Masonic Lodge in The Village, and a Dart Club at the Forum in the town centre. Most of the men who belong to groups in other parts of East Kilbride are members of social clubs at their place of work, such as the Rolls Royce Social Club in the Nerston Industrial Estate. Several of the organisations to which people belong, outside East Kilbride, are the result of links maintained since their arrival in East Kilbride, such as with Masonic Lodges at Hamilton, Girvan and Blantyre, and the Camera Club at Strathaven. Other organisations include the Trade Union Social Club in Glasgow and the social clubs of firms in other towns such as Cambuslang and Rutherglen.

More wives than husbands belong to groups in the neighbourhood unit, but fewer women are members of organisations outwith Calderwood. Members of local clubs are found more in the central section of the unit than on the peripheral areas. Calderwood Ladies' Club at Hunter School and the Young Mothers' Club at Long Calderwood have most of their members living within about quarter of a mile of the meeting places. The Women's Guild at Moncreiff Church, and St. Leonard's Women's Guild at Long Calderwood School attract people from most parts of Calderwood. Of significance are the small social clubs that have been formed in localised parts of the neighbourhood unit. For example, the Raeburn Social Club has members in the Raeburn Avenue area and the Maxwellton Social Club has members among people living west of Calderwood Road. The Calderwood Club arranges parties and outings for families of its members in the same way as the other small clubs.

Women in Calderwood also belong to organisations that meet in other parts of the town, such as the Eastern Star, the Women's Royal Voluntary Service, and the Unionist Party in The Village, the Women's Rural Institute in Nerston and various groups affiliated with churches in Glasgow and other nearby towns.

Children more often belong to groups in their own neighbourhood unit, or another part of the town. The few who belong to organisations that meet regularly in others towns have retained membership near their former homes. Attached to Moncreiff Church are a Youth Fellowship, a Boys' Brigade, and Rosebuds Group. Youth organisations meet in the schools. For example, at Maxwellton School are a Youth Club, Crusaders, Girl Guides and Brownies; at Hunter School are a Youth Club, Girl Guides, Brownies and a Red Cross group; and at Long Calderwood is a Gymnastics Club. Scouts and Cubs have their own building near the Whitemoss Recreation area. Although these organisations are found in Calderwood, young people from Calderwood belong to similar groups elsewhere. For example, the Youth Club in The Village, Brownies at the Old Parish Church and at Halfmerk School, Girls' Brigade in Westwood, and the Youth Club, Girl Guides, Brownies and Cubs at St. Bride's. Club membership in other neighbourhood units is mainly related to religious affiliations, but partly because membership of some organisations has reached its maximum in Calderwood. Most children belonging to youth organisations live in the central and western parts of Calderwood. In the north-east of the unit most children are too young, and the distance to the meeting places of the youth groups deters some of them from going beyond Long Calderwood.

Few groups or clubs serve the total population in Calderwood. Either they cater for people throughout East Kilbride, or just one section of Calderwood. Allegiance to churches and schools determines some of the leisure activities and organisations to which people belong. Facilities existing in Calderwood are sometimes bypassed because of former ties, links with activities at the place of work, or interests of a vocational nature centralized in Glasgow.

Several organisations have established themselves. The social clubs have been formed. The Craigshill Club was formed primarily to enable newcomers to meet each other. Beetle drives, whilst drives, and indoor games such as table tennis and darts are organized regularly in the Riverside School. The school is also the meeting place of the Women's Rural

(d) CRAIGSHILLTable 16.14 Attendance at meetings by Craigshill residents
(Total households = 146)

A = More than once a week
 B = Weekly
 C = Fortnightly
 D = Monthly
 E = Less than once a month

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>% of Households</u>
Husbands						
Craigshill	2	4	3	5	2	11.0
Other districts	-	1	2	1	2	4.1
Elsewhere	4	3	4	2	4	11.6
Wives						
Craigshill	3	6	2	6	1	12.3
Other districts	2	2	-	-	-	2.7
Elsewhere	-	-	1	2	3	4.8
Girls under 16 years						
Craigshill	3	4	-	-	-	4.8
Other districts	-	-	-	-	-	-
Elsewhere	-	1	-	-	-	0.7
Boys under 16 years						
Craigshill	2	4	-	-	-	4.1
Other districts	-	-	-	-	-	-
Elsewhere	1	-	-	-	-	0.7
Others						
Craigshill	1	-	-	-	-	0.7
Other districts	-	-	1	-	-	0.7
Elsewhere	-	-	-	-	-	-

Although Craigshill is such a new community, several organisations have established branches, and social clubs have been formed. The Craigshill Social Club was formed primarily to enable newcomers to meet each other. Beetle drives, whist drives, and indoor games such as table tennis and darts are organized regularly in the Riverside School. The school is also the meeting place of the Women's Rural

Institute, the branch of the Scottish Nationalist Party, the Riverside Women's Club and the Church management Committee, and the Youth Wing at Riverside School is the centre for the local Youth Club. Several of the teenagers in Craigshill, as well as many from the surrounding towns and villages go regularly to the Youth Club which is conducted for the community by a Church of Scotland youth worker. With few other youth clubs nearby, the young people do not leave Craigshill as readily as they do from the other residential units that have been studied. A few of them go as far as Blackburn to a Youth Club, and the Ranger Company in Mid Calder has some girls from Craigshill. Meetings are held for Girl Guides, Brownies, Scouts and Cubs at the Letham School.

The aim of the social workers has been to involve everyone in building a community spirit. Activities and meetings are well advertised in "Newsflash" and at the corner shops, yet there are complaints that people do not know what is going on and feel lonely. A welcoming service is organised by a committee who try to ensure that all immigrants are visited within a short time of their arrival, and introduced to the town. Ties with other towns remain strong, particularly among men's club membership. Men continue to go regularly to Masonic Lodges in Whitburn, Edinburgh, Broxburn and Ratho; to play in a Band at Motherwell, to practise with a Recorder Group in Edinburgh, to attend occasional meetings of the Coll Association in Glasgow, and to attend functions at the Miners' Welfare Club in Blackburn. People who have previously lived in Livingston Station or in its environs, return to meetings of the Eastern Star, the Orange Lodge, and the Deans Ladies' Guild, but the numbers are small. A few people also attend meetings of the Kirkton Motoring Club and of the Women's Knitting Club at Howden House.

Apart from these organisations, the Cameron Iron Works has a social club although its popularity is not as great as that of the Rolls Royce Club in East Kilbride. Several men and women belong to staff social clubs in Edinburgh and elsewhere.

Scottish Nationalists. Children in their organisations as well. Life Boys, Scouts, Brownies and Cubs, the Youth Club, Lodge are all represented in Deans.

Variations in club membership exist in Craigshill. The most recent immigrants were still settling when the survey was made. Furthermore, it was summer, and most organisations were in recess during the holiday period. For these reasons, the families in some parts of Craigshill had not joined any local organisation. The importance of belonging to a local group was made clear by several householders to whom the rows of new buildings, the noise of construction on new sites, the unsightliness of the rough ground, and the strangeness of the surroundings, were depressing. Yet in spite of this attitude among several residents, the proportion of people belonging to clubs and organisations is small.

(e) DEANS

Compared with the other residential units, membership of clubs within Deans is high. Only men who have gone to Livingston since its designation as a New Town, leave the area in order to attend meetings or activities of clubs. Men who have lived in the district for several years are members of the Masonic Lodge and the Pigeon Club.

The proportion of women who attend meetings of clubs and groups is higher in Deans South (38%) than in the north of the district (18%). A Deans Ladies' Guild was commenced mainly as an effort to heal a split between the older and the newer residents in the community, to end the loneliness of newcomers, and to help the Livingston Station residents to accept the changes that were taking place. The coffee mornings have since become a regular feature, but the results of the interviews indicate that few people from Deans South attend them. Women from the north are also members of the Eastern Star, the Women's Rural Institute, the Co-operative Women's Guild and the Old Age Pensioners' Club. The Young Wives' Group that meets in the Deans Institute has a membership list consisting mainly of women in Deans South. More mixing of people from the two sections of Deans takes place at the meetings of political parties - the Young Socialists and the Scottish Nationalists. Children tend to mix in their organisations as well. Life Boys, Boys' Brigade, Scouts, Brownies and Cubs, the Tufty Club, and the Juvenile Lodge are all represented in Deans.

Table 16.15 Attendance at meetings by Deans residents
(Total households = 74)

A = More than once a week
B = Weekly
C = Fortnightly
D = Monthly
E = Less than once a month

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>% of Households</u>
<u>(f) SUMMARY</u>						
Husbands						
Deans	2	2	5	1	2	16.2
Other districts	-	-	-	1	-	1.4
Elsewhere	2	2	-	2	4	13.5
Wives						
Deans	2	4	5	7	1	25.7
Other districts	-	-	-	-	-	-
Elsewhere	1	-	1	1	2	6.8
Girls under 16 years						
Deans	-	4	-	-	-	5.4
Other districts	-	-	-	-	-	-
Elsewhere	1	-	-	-	-	1.4
Boys under 16 years						
Deans	-	8	-	1	-	12.2
Other districts	-	-	-	-	-	-
Elsewhere	-	-	-	-	-	-
Others						
Deans	-	2	-	-	-	4.1
Other districts	2	1	-	1	-	5.4
Elsewhere	-	1	1	1	-	4.1

A small number attend meetings of the Kirkton Car Club at Howden House and a few go along to the Craigshill Youth Club. Clubs and groups in other towns that attract Deans residents include the Youth Club in Bathgate, as well as the Bathgate branch of the Scottish Nationalist Party, and the Red Cross, the British Legion in West Calder, the Whitburn Miners' Club, the Baptist Union in Glasgow and social clubs in various industries. The majority of these towns are within five miles of Deans and are branches of organisations to which immigrants belonged before going to Livingston.

Recreational activities show different patterns in the two parts of the district because of differences in age structure, in socio-economic conditions, in backgrounds and in the interests of the population. Consequently, integration of the people in the two areas is not achieved readily through involvement in the activities of local organisations.

to be chosen. In Calderwood where the distances within the residential unit are greater than in the other towns,

(f) SUMMARY

Although only a small proportion of households are represented in any one club or organisation, the variety of organisations in the more established towns enables most people to join a group having a common interest, somewhere in the town.

Psychologists consider that a sense of belonging is essential for a person's well-being, and the results of the survey support this. Interviewees who complained most about conditions in the towns, and dislike living in the area, normally do not belong to any group in the town. In the New Towns, the residents feel the need to associate with a group of people irrespective of whether the other people in the group live in the same area. However, membership of a group living within a well-defined area enhances the consciousness of the area among the members, whether it is a residential unit, a town, or a region.

In the New Towns marked differences in formal group membership occur between husbands and wives. Men more often than women, remain associated with groups in other towns, and also are prepared to travel further, to societies catering for their special interests. Young married women who accept the responsibility for their children, usually join groups that meet near the home during the day. Not only do fewer women participate in group activities beyond the town, but also those who go to other towns make relatively less frequent visits. Membership of groups in other towns is related closely to the accessibility of the former place of residence. The place of work and the influence of major urban centres are of less significance.

Except for Calderwood, distance is not a major factor determining the membership of groups within the residential

These results suggest that the continued interaction of residents in the residential units has not been as readily

units. The previous interests of newcomers, the introductions and invitations received shortly after arrival, affiliation with branches existing elsewhere, and membership of related groups, are all significant. However, when the option is between membership of a group in the unit and a similar group in another unit, the more accessible place is likely to be chosen. In Calderwood where the distances within the neighbourhood unit are greater than in the other towns, the distance has a stronger influence on membership of women's groups. Hence women in the north-east part of the town meet at social gatherings in Long Calderwood School, while those in the more central locations tend to go to Moncreiff Church or Hunter School for meetings.

Youth Clubs and other organisations for young people do not always attract members living nearby, although children normally belong to groups in their own residential unit or one that is quite close. The relatively large number in Calderwood who belong to organisations in other units, is partly accounted for by the Roman Catholic population who are connected with activities at St. Bride's Church near the town centre.

The variety of organisations meeting in a residential unit affects the number of local people attending meetings within the unit. This is related to the stage of a unit's settlement compared with the rest of the town. The first units in a New Town have a larger number and variety of activities and groups than the units that are established later. The Mains in East Kilbride, and Woodside in Glenrothes, have more groups meeting than the other residential units in their respective towns. In Livingston, the two districts have been built so far apart that the formation of a club in one district has little effect on the other. Hence, South Parks, a newer precinct, has fewer activities than Woodside, and South Parks residents go to other areas including Woodside. Few residents go from Woodside to South Parks. In East Kilbride, Calderwood residents find activities for their leisure in The Mains and The Murray, but there appears to be little movement in the opposite direction.

These results suggest that the continued interaction of residents in the residential units has not been as readily achieved as was expected with neighbourhood planning.

ENTERTAINMENT

The section of the questionnaire relating to entertainment (No.5 in Appendix 2) was included, in order to determine the frequency of attendance at selected entertainments attracting a cross-section of the community.

The New Towns must rely on the initiative of commercial organisations to establish halls, cinemas and bowling alleys although allowance is normally made for their location in the master plans. As most commercial enterprises of this type can only be undertaken when sufficient support from the population is ensured, so that they will be economically viable, few forms of commercial entertainment can be provided in the early stages of a New Town's development. As a result, most entertainment is sought outwith the New Towns.

(a) WOODSIDE

Table 16.16 Location of entertainments patronized by Woodside residents (Total households = 111)

	Cinema	Theatre	Concerts	Amateur Shows	Bowl- ing Alley	Dances	Bingo
Woodside	1	-	-	16	-	2	7
Other precincts	-	-	-	5	-	1	-
Town centre	-	-	-	4	14	4	-
Towns nearby*	70	3	9	7	4	32	18
Edinburgh	4	31	-	1	-	-	-
Glasgow	1	11	1	1	-	-	-
Elsewhere	3	12	1	6	-	6	1

* Includes Kirkcaldy, Markinch, Leslie and Thornton.

Table 16.17 Attendance at entertainments by Woodside residents (Total households = 111)

	Cinema	Theatre	Concerts	Amateur Shows	Bowl- ing Alley	Dances	Bingo
More than once a week	1	-	-	-	1	2	6
Weekly	5	-	-	-	2	13	10
Fortnightly	5	-	-	-	1	1	2
Monthly	8	-	1	2	5	5	3
4-8 times a year	12	8	1	6	1	8	3
2-3 times a year	21	11	4	14	5	7	1
Once a year	24	30	5	19	2	5	-
Less than once a year, or never	35	62	100	70	94	70	86
Percentage of households attending once a year or more often	68.5%	44.1%	9.9%	36.9%	15.3%	36.9%	22.5%

The cinema is the most popular place of entertainment among Woodside residents, people in 68% of the households going to see one or more films a year. Kirkcaldy is visited most for this purpose, but usually only a few times a year when there is a film they consider particularly worth seeing. Very little difference in cinema-going habits is found between one part of the precinct and another, but a tendency is for people living east of Woodside Way to go more frequently than people to the west.

Attendance at plays, variety shows, pantomimes, ballets and opera involve people in 44% of the households, at least once a year. Although most people go to Edinburgh, trips are made occasionally to Glasgow, Dundee, and to Kirkcaldy during visits of the Perth Repertory Company. Musical concerts in Perth, Glasgow and Kirkcaldy are attended by only a few people. Visits to the theatre and concerts are frequently organized by clubs and organisations. The hire of a bus enables people who have to rely on public transport to go. Membership of local organisations therefore has some influence on attendance at entertainments in Edinburgh and Glasgow.

Amateur productions are offered in Woodside, as well as other parts of Glenrothes and in Markinch. The Glenrothes Dramatic Society has presentations two or three times a year in Auchmuty Secondary School, and an annual performance is given by the Operatic Society in Markinch. Apart from these entertainments, small concerts for the Old Age Pensioners in the Woodside Community Hall, band concerts, school concerts, and entertainments in St. Margaret's Church hall, and St. Paul's Church in Auchmuty, are given occasionally throughout the year. Few people attend these entertainments more than four times a year.

When it was first built, the Glenrothes Bowling Alley was a novelty, and was patronized more by local residents than it is now. Although teams from local firms play in league games, little use is made of it by individuals. Several people prefer to go bowling in Kirkcaldy. Very few residents in the western part of the precinct or in Alburne Park treat bowling as a regular entertainment.

Although dances are held regularly at the C.I.S.W.O. hall in the town centre, young people who go dancing frequently usually go to Kirkcaldy, or one of the nearby settlements such as Markinch, Thornton, Methil, Leven or Kingskettle. People who dance less frequently, normally attend staff dances or club dances that are held in different places each year. Because more teenagers are found on the east side of Woodside, it has a higher proportion of people who attend dances frequently than the west and Alburne Park.

Whereas attending dances frequently is a characteristic of younger people, playing bingo is more often associated with middle-aged people. The game is played by people in almost a quarter of the households, most of which are in the east and north of Woodside. People go to Kirkcaldy, Leslie and other nearby towns more frequently for this than for any other entertainment. The few bingo players in the west of Woodside and Alburne Park are people who go to the British Legion where social evenings sometimes start with bingo and finish with other activities.

Frequency of trips for specific types of entertainment is partly determined by the nature of the entertainment,

* Includes Kirkcaldy, Leslie, Markinch, Thornton, Leven.

and partly by the distance to be travelled. The distance to Kirkcaldy does not prevent people from going there to dances, bingo, or to the bowling alley although similar facilities are found near at hand. However, few journeys are made beyond Kirkcaldy for these activities. Except for occasional local concerts and socials, most people find their entertainment away from the residential unit.

(b) SOUTH PARKS

Table 16.18 Location of entertainments patronized by South Parks residents (Total households = 91)

	Cinema	Theatre	Concerts	Amateur Shows	Bowl- ing Alley	Dances	Bingo
South Parks	-	-	-	21	-	-	-
Other precincts	-	1	-	18	-	-	-
Town centre	-	-	-	1	9	9	3
Towns nearby*	54	2	3	7	2	28	8
Edinburgh	2	18	2	-	-	3	-
Glasgow	-	11	-	-	-	-	-
Elsewhere	1	2	-	-	-	4	-

Table 16.19 Attendance at entertainments by South Parks residents (Total households = 91)

	Cinema	Theatre	Concerts	Amateur Shows	Bowl- ing Alley	Dances	Bingo
More than once a week	-	-	-	-	1	1	2
Weekly	3	-	-	-	4	3	4
Fortnightly	1	-	-	-	-	2	2
Monthly	8	1	-	2	-	1	2
4-8 times a year	11	1	1	3	1	9	1
2-3 times a year	17	13	2	16	3	13	-
Once a year	17	13	2	18	2	4	-
Less than once a year, or never	34	63	86	52	79	58	80
Percentage of households attending once a year or more often	62.6%	30.8%	5.5%	42.9%	13.2%	36.3%	12.1%

* Includes Kirkcaldy, Leslie, Markinch, Thornton, Leven.

In South Parks, as in Woodside, the cinema appeals to more people for entertainment than any other single kind. Several people go to film shows in Kirkcaldy, but Leslie and Leven are also popular. Few people go as far as Edinburgh. Most films that are shown in Edinburgh are also shown in Fife and the cost of seats at the cinemas nearby is considerably less than the cost in Edinburgh.

Most South Parks residents who visit the theatre, go either to Edinburgh or Glasgow once or twice a year. Some people take advantage of group bookings made through their work, through clubs or by other organisations, and travel together in a special coach. For example, the Women's Guild organize trips to the Perth Repertory Theatre and to Dundee. During the seasons of the Edinburgh Festival and the Scottish Opera a few enthusiasts go to performances in Edinburgh. Part of the Scottish Opera has been to Glenwood Junior High School to give a public performance as well. Musical concerts are less popular than theatrical productions, and except for the occasional Scottish National Orchestra Concert in Kirkcaldy, it is necessary to travel to Edinburgh for big orchestral concerts. Out of the five households in the sample who attend concerts, four are in the owner-occupied area in the northern part of the precinct.

Amateur productions and concerts are attended by more than the number going to the theatre and concerts, but few of them go to more than three a year. Most of these are within Glenrothes itself. Included, are the same types of entertainment as are attended by Woodside residents, such as productions of the Glenrothes Little Theatre at Auchmuty School, concerts at the Y.W.C.A. in the town centre, and annual school functions at both South Parks and Glenwood Junior High Schools. A few people go to Markinch to see the operatic group's annual production. There is a tendency for a higher proportion of people living in the eastern part of the precinct to attend local entertainments, and for the people in the newer western section to find their entertainment in the town centre and other precincts.

In spite of the proximity to the town centre, people in only 13% of the households go to the bowling alley there

once a year or more. None of these is found in the northern part of the precinct. The frequency of visits varies from several times per week, to less than once a year. Of the eleven people in the sample who go bowling, two visit Kirkcaldy regularly.

A difference exists between the north and other parts of the precinct, among the people who go dancing. In the north dinner-dances are attended between two and four times a year. These are usually staff dances, club dances and special occasions which take people to various parts of Fife and Edinburgh. In the rest of the precinct are residents who go to Kirkcaldy, Leslie, and to the Y.W.C.A. and C.I.S.W.O. in the town centre more frequently.

Bingo is less popular in South Parks (12.6% of the households) than it is in Woodside (23%). Most of those who play bingo go either to the C.I.S.W.O. hall in the town centre, or to Leslie at least once a month. No-one in the sample in the north of the precinct plays bingo.

The survey has brought out differences between the forms of entertainment patronized by the people in the north and in the rest of South Parks. In particular it emphasizes the distinction between the owner-occupiers in the north who are generally in the higher socio-economic classes, and tenants in the south. For example, in the north more people tend to go to musical concerts and to dinner-dances or club dances than in the south. From the north, more people go dancing frequently, play bingo, or go bowling. In the south the population is more mixed from a socio-economic point of view, so spatially no marked differences exist in interests and entertainment.

The cinema in East Kilbride was opened shortly after the completion of the interviews, so the large number of complaints about the lack of a cinema in the town are no longer valid. As in Glenrothes, the cinema is the most popular form of commercial entertainment, almost 50% going at least once a year. Film shows for children are held in the village on Saturday mornings. Adults travel either to Glasgow or one of the towns nearby, such as Hamilton, Rutherglen or Clarkston. With a big choice of films in

(c) CALDERWOOD

Table 16.20 Location of entertainments patronized by Calderwood residents (Total households = 376)

	Cinema	Theatre	Concerts	Amateur Shows	Dances	Bingo
Calderwood	-	-	-	31	4	-
Other neighbourhoods	2	-	-	91	77	5
Town centre	-	-	-	6	62	-
Towns nearby*	94	1	-	13	55	8
Edinburgh	-	3	-	-	3	-
Glasgow	242	242	48	13	99	21

Table 16.21 Attendance at entertainments by Calderwood residents (Total households = 376)

	Cinema	Theatre	Concerts	Amateur Shows	Dances	Bingo
More than once a week	3	-	-	-	7	3
Weekly	34	1	-	1	20	18
Fortnightly	18	5	1	-	8	1
Monthly	58	15	3	5	35	1
4-8 times a year	52	54	9	31	67	1
2-3 times a year	74	97	18	48	55	8
Once a year	56	69	19	50	28	2
Less than once a year, or never	81	135	326	241	156	342

Percentage of households attending once a year or more often

78.9% 64.1% 13.3% 35.9% 58.5% 9.6%

The cinema in East Kilbride was opened shortly after the completion of the interviews, so the large number of complaints about the lack of a cinema in the town are no longer valid. As in Glenrothes, the cinema is the most popular form of commercial entertainment, almost 80% going at least once a year. Film shows for children are held in the village on Saturday mornings. Adults travel either to Glasgow or one of the towns nearby, such as Hamilton, Rutherglen or Clarkston. With a big choice of films in

* Towns of North-west Lanarkshire.

Glasgow, more people in East Kilbride than in Glenrothes go to the cinema at least once a month.

Outings to the theatre are mostly to Glasgow, the majority of those who are interested going two or three times a year. As in Glenrothes, arrangements for theatre trips are made by organisations and by the schools. Attendance at concerts is also primarily in Glasgow, but few people go more than four times a year.

Local amateur productions are received with enthusiasm. The Repertory Company in the village and the Operatic Society at Duncanrig School are particularly popular. In addition there are occasional folk concerts in the town centre, school concerts, and concerts given by various organisations both in Calderwood and other neighbourhood units. Comparatively few people go to amateur entertainments in Glasgow or other towns.

The bowling alley closed during the period of the interviews so the statistics obtained from the interviews are inaccurate. Of the interviewees, 16% claimed that members of their households visited the bowling alley regularly in the past. People in about 4% of the households go bowling in Glasgow, and a small number go as far as Kirkcaldy on outings organized by social groups.

Young people go dancing regularly in other neighbourhood units. For example, they visit the Westwood Bar, St. Bride's Church, and the Torrance Hotel or the Masonic Hall or the town hall in the village. Dances organized by staff clubs, such as the Rolls Royce Club and the National Engineering Laboratory Staff Club, are held on their own premises or at one of the hotels in the town. Sports clubs and social clubs, like the Raeburn Club mentioned earlier, arrange dances both in East Kilbride and the surrounding towns. Most young people go to dance halls in Glasgow and towns in North-west Lanarkshire. Few of those who go to dances as often as once a month or more, live in the extreme south-west or the north-east of Calderwood neighbourhood. In both of these parts of the unit a number of people attend club and staff dances a few times each year. In the north-east, young families tie parents to the homes more than in areas with fewer young children.

Bingo sessions at the Olympia in the town centre have been discontinued, but several women play in Glasgow and Cathcart. Some people attend sessions at St. Bride's Church hall occasionally. Most of the people who play bingo, live in the central part of Calderwood. Very few are found in the eastern part of the neighbourhood unit. This distribution can be related to the age structure and the tendency for older people to be enthusiastic about the game.

Some similarities exist between the entertainment patterns in Calderwood and those in South Parks. The cinema is the most popular form of entertainment, and bingo sessions are attended by few although the game is played frequently. In the areas having large proportions in the upper socio-economic classes are found fewer bingo players, little dancing except at club and staff dances and balls, and no bowling. The other entertainments are patronized by people throughout the neighbourhood unit.

(d) CRAIGSHILL

Table 16.22 Location of entertainments patronized by Craigshill residents (Total households = 146)

	Cinema	Theatre	Concerts	Amateur Shows	Bowl- ing Alley	Dances	Bingo
Craigshill	-	-	-	26	-	1	-
Other districts	-	-	-	1	-	4	1
Towns nearby*	48	2	-	2	-	61	18
Edinburgh	59	50	8	-	2	34	3
Glasgow	5	10	-	2	1	1	1
Elsewhere	5	2	-	-	16	11	3

* Towns in the Lothians Regional Survey Area.

Table 16.23 Attendance at entertainments by Craigshill residents (Total households = 146)

	<u>Cinema</u>	<u>Theatre</u>	<u>Concerts</u>	<u>Amateur Shows</u>	<u>Bowling Alley</u>	<u>Dances</u>	<u>Bingo</u>
More than once a week	1	-	-	-	-	-	3
Weekly	6	-	-	-	-	-	5
Fortnightly	2	1	-	-	-	4	3
Monthly	18	4	1	-	2	11	8
4-8 times a year	20	4	1	3	3	28	2
2-3 times a year	25	19	4	9	6	29	2
Once a year	20	32	2	13	8	14	-
Less than once a year, or never	54	86	138	121	127	60	123
Percentage of households attending once a year or more often							
	63.0%	41.1%	5.5%	17.1%	13.0%	58.9%	15.8%

Craigshill has little commercial entertainment and infrequent evening bus services to areas where a choice of entertainment is available. The last bus from Edinburgh leaves at 10.15 p.m. so it is not even possible to attend an evening showing at a cinema in the city without involving a walk from Pumpherston or the main road in the north. The high level of car ownership in the district overcomes this problem for some households, but the majority of people in Craigshill go to the cinema less than once a month. Although less choice of films is available in Bathgate, the town is visited by many of the cinema-goers.

Edinburgh is also the main centre for Craigshill residents who attend plays, opera and musical concerts, but few people go more than three times a year. Journeys to the theatre in Glasgow are often with organisations rather than as individuals or family groups alone.

A smaller proportion in Craigshill than in the other residential units, attend amateur entertainments either locally or in nearby towns. This is partly because several of the interviewees have not been in the town long enough to become involved in local activities of this nature, but

also because of the large number with active interests outside the town. The most popular local entertainment is the concert that, until now, has been held annually in the Riverside School. Some of the local organisations have arranged entertainments for the community. A few people whose children are at school in Bathgate, Broxburn and East Calder attend occasional school concerts in those towns.

Visits to the bowling alley in Kirkcaldy are arranged once or twice a year by the Youth Club and other groups. Until the closing of the bowling alley in East Kilbride that was also popular.

Although a large proportion of the population go to dances, these are chiefly staff and club dances in nearby towns such as Broxburn, Pumpherston, West Calder and Armadale. Edinburgh is the single most popular centre for frequent dances.

Bingo is not played in Craigshill, but special buses take women to Bathgate and Broxburn, so they play frequently without inconvenience. People playing less often, go to bingo sessions during visits to other places such as Wishaw, Shotts, and Stoneyburn, for other purposes.

It is not possible to make any generalizations about the individual cells in Craigshill, in respect of the entertainments patronized. It is significant, however, that although only four interviews took place in Almond South no-one goes to a bowling alley and no-one plays bingo. Otherwise, the distribution of people who go to these different types of entertainment, is mixed throughout the district.

45.9% 41.9% 5.4% 37.8% 6.8% 59.3% 20.3%

Livingston lacks some of the amenities that the more established New Towns have acquired. Hence both Craigshill and Deans rely on facilities in Edinburgh, Bathgate and Broxburn. Nevertheless, spatially, differences exist in the various types of entertainments attended. For example,

* Towns in the Lothians Regional Survey Area.

(e) DEANS

Table 16.24 Location of entertainments patronized by Deans residents (Total households = 74)

	Cinema	Theatre	Concerts	Amateur Shows	Bowl- ing Alley	Dances	Bingo
Deans	-	-	-	24	-	17	-
Other districts	-	-	-	-	-	2	-
Towns nearby*	17	-	-	4	-	29	14
Edinburgh	19	30	3	-	-	8	-
Glasgow	2	4	-	-	1	1	-
Elsewhere	1	-	1	-	4	4	1

Table 16.25 Attendance at entertainments by Deans residents (Total households = 74)

	Cinema	Theatre	Concerts	Amateur Shows	Bowl- ing Alley	Dances	Bingo
More than once a week	-	-	-	-	-	2	1
Weekly	5	-	-	-	-	7	8
Fortnightly	2	-	-	-	-	-	-
Monthly	3	-	-	1	1	8	3
4-8 times a year	4	5	-	5	2	11	3
2-3 times a year	13	12	2	14	2	12	-
Once a year	7	14	2	8	-	4	-
Less than once a year, or never	40	43	70	46	69	30	59

Percentage of households attending once a year or more often

45.9% 41.9% 5.4% 37.8% 6.8% 59.5% 20.3%

Livingston lacks some of the amenities that the more established New Towns have acquired. Hence both Craigshill and Deans rely on facilities in Edinburgh, Bathgate and Broxburn. Nevertheless, spatially, differences exist in the various types of entertainments attended. For example,

* Towns in the Lothians Regional Survey Area.

in the north of Deans people in about 9% of the households go to the cinema at least once a month, but in Deans South almost twice that percentage of people do the same thing. There are also 58% of the households in the north from which no-one goes to the cinema as much as once a year, while 38% of the households in Deans South have no cinema-goers. Theatre trips are normally to Edinburgh, and are organized by the Deans Ladies' Guild twice a year. Few people go as far as Glasgow. Only 5% of the households have any concert-goers. Concerts at the Edinburgh Festival and folk concerts in several smaller centres attract Deans residents.

Amateur productions in Deans are attended by people in 38% of the households. Most of these evenings are held in Livingston Station for the benefit of old age pensioners, or to raise money for charities, or are entertainments provided by the Scouts and Cubs. The Choral Society and school functions in Bathgate are attended by a few of the Deans residents.

Only 7% of the households in the sample have any interest in travelling to a bowling alley in Kirkcaldy or elsewhere, and the trips are infrequent. As in Craigshill, such journeys are usually made with a group from a club or organisation, so that the cost of transport can be reduced.

Dancing is the most popular form of entertainment in the district. Deans South, with its higher proportion of young people, has a larger number dancing in Edinburgh and the nearby towns. In fact, the people in 72% of the households attend dances at least once a year, compared with only 51% in the north. The older people more often attend dances held by clubs and organisations in Livingston Station, such as the Bowling Club and the Masonic Lodge. The Red Cross in Bathgate, the British Legion in Armadale and golf clubs in other towns hold dances in the vicinity. Young people tend to go dancing more frequently in Bathgate and Edinburgh.

Bingo is more popular among residents in the north of Deans (20% of the households) than in the south (10%). The majority of the bingo players go to Bathgate and Broxburn

in the same way as the Craigshill residents do. Within Livingston Station whist drives held in the Deans Institute are more popular.

The difference between the north and the south of Deans is partly the result of differences in ages. However, people who attend any type of commercial entertainment frequently form only a small part of the population. The interest in specific forms of entertainment is important in community cohesion only where it is manifested in leisure time pursuits that are in addition to attendance at these entertainments.

(f) SUMMARY

The differences between the residential units in the proportion of the population attending an entertainment are the result of distance from the amenities, and the ease and availability of transport to an area with a variety of facilities. Hence, more people in Calderwood (79% of the households) go to the cinema than in Deans (46%). Frequent bus services and a direct route from Calderwood to Glasgow with its choice of films, contrasts with the inadequate evening bus services for Deans residents from Edinburgh, and limited variety of films in Bathgate. Similarly, a higher proportion of people go to the theatre and to concerts from Calderwood than from the residential units in the other New Towns.

Bowling alleys have only a limited appeal, but distance to the nearest bowling alley appears to be a relatively minor factor influencing the proportion of people using it, although the distance has a marked effect on the frequency of visits. Distance also affects the reason for the choice of entertainment. Several Glenrothes residents play in a league, but Livingston residents go to a bowling alley for an evening's social entertainment.

Distance is an important factor influencing attendance at amateur entertainments, both directly and indirectly. For example, people often go to school concerts and church functions out of a sense of duty. Since most people go to a school or a church nearby, they also attend this form of

entertainment near their home. The quality of amateur production in relation to other productions nearby also influences the distance people travel, as seen by the number of people who go from South Parks to Markinch to see performances of light opera.

The other factors influencing the entertainments attended by New Town residents are age structure, socio-economic condition and cultural background. These three features are most clearly seen in Deans where there are significant differences between the north and the south of the district, but they can also be seen in Woodside between the area of Fife County Council houses and the west of the precinct. Within a single town, the difference between the precincts in distances to an entertainment appears to be of minor importance. Major differences appear when the individual towns are compared. The scale of distances is of greater significance in its influence on attendance at commercial entertainment.

the church or the school in South Parks act as a community focus for the community. Nor does the church or the school in South Parks act as a community focus for the community. Nor does the church or the school in South Parks act as a community focus for the community.

CONCLUSION

Although most households participate in some recreational activities outside the home, the number of people going to a single facility, or even to a single form of recreation is small. In particular, men often follow leisure time pursuits away from their own residential units, usually in other towns where attachments have been formed previously.

Generally no direct relationship exists between place of work, shopping habits and recreational pursuits. There is a higher correlation between socio-economic classes and type of recreation, than with place of recreation.

The use made of the open spaces for organized and semi-organized sport, and of other recreational facilities, bears only a limited relationship to accessibility within the unit. However, accessibility has a direct bearing on whether community facilities within the unit are used, rather than facilities outwith the unit.

The cost-distance factor affects attendance at individual recreational activities in different ways. Hence the distance the population travels frequently to other areas is influenced by the type of recreation.

The extent that New Town residents go to major centres for recreation depends on the facilities available in nearby smaller towns, and the mobility of the population, if no regular public transport service exists. Accessibility of the main centres in terms of time and cost, and the hours during which the public transport services operate are significant.

Fewer ties with other towns, and restricted mobility, cause the majority of children to participate in recreational activities in the residential unit, and other parts of the town nearby.

The centres of community activities in each residential unit have their own locational characteristics. In Woodside the Community Hall is only one of several places accommodating recreational activities. The church hall and Carleton School act as equally important focal points. The South Parks Farmhouse is the centre for a few activities but it does not provide a true focus for the community. Nor does the church or the school in South Parks act as a community centre in the widest sense of the term. The size of Calderwood hinders the development of a single area or one building as a community centre. Instead, Moncreiff Church hall and the schools are all used as centres of different activities, for people in sections of Calderwood or for the whole residential unit. The school building (Riverside) is definitely the main focal point for recreational activities within Craigshill, although a large amount of recreation is taken outside the town. The school has become the temporary focus of educational, cultural and recreational activities because no other community building exists at present. Deans is the only unit in which all existing community facilities used for educational and recreational purposes are located near each other. The Deans Institute, the primary school, the church and the bowling green are in the northern part of the district and tend to serve as a centre for people in the north. This section cannot be considered as a focal point of the whole district.

The results show that not only do a small proportion of people participate in recreational activities within the residential units, but also, that most groups are small and meet in scattered parts of the units. Thus, the continued interaction of residents from all parts of the residential unit, is difficult to achieve.

It was believed that the depression found among inhabitants would be overcome as social facilities became available (Taylor and Chase, 1964). As a reaction against the feeling of loneliness and strangeness in new surroundings, some people cling to friends and relations in towns where they lived previously. This feature is particularly noticeable among people who are nearer to their former homes. Some New Town residents are therefore away from their new homes several days each week, resulting in few opportunities and little available time for meeting people living in the same residential area. These firm ties with nearby towns can be considered as an aid to settling in a new environment, or as a hindrance to the development of community spirit and attachment to the New Town.

Section 7 in the questionnaire (Appendix 2) is concerned primarily with the visiting habits of the New Town residents. The answers to these questions show the extent of visiting within the residential unit as well as beyond it. Areal variations in neighbourliness manifested through visiting are the result of several factors, including the age of the visiting development, the degree to which ties with other towns can be maintained, and the opportunities for entertainment and meeting others in the New Town.

CHILDREN'S FRIENDS

Answers to Section 6, 3a.3 in the questionnaire show a general picture of the distribution of children's friends in relation to the household in the New Town. The opportunity of visiting has not been used in the New Town to the extent of the opportunities in the replies given to questions 3a.3.

CHAPTER XVII

VISITING HABITS IN THE RESIDENTIAL UNITS

The Report of the Ministry of Housing and Local Government for 1960 (Ministry of Housing and Local Government, 1960) used the term "New Town blues", and suggested that these were a feature of the early days in New Towns when few acquaintanceships had been made. It was believed that the depression found among inhabitants would be overcome as social facilities became available (Taylor and Chave, 1964). As a reaction against the feeling of loneliness and strangeness in new surroundings, some people cling to friends and relations in towns where they lived previously. This feature is particularly noticeable among people who are nearer to their former homes. Some New Town residents are therefore away from their new homes several days each week, resulting in few opportunities and little available time for meeting people living in the same residential area. These firm links with nearby towns can be considered as an aid to settling in a new environment, or as a hindrance to the development of community spirit and attachment to the New Town.

Section 7 in the questionnaire (Appendix 2) is concerned primarily with the visiting habits of the New Town residents. The answers to these questions show the extent of visiting within the residential unit as well as beyond it. Areal variations in neighbourliness manifested through visiting are the result of several factors, including the age of the housing development, the degree to which ties with other areas can be maintained, and the opportunities for entertainment and meeting others in the New Town.

CHILDREN'S FRIENDS

Answers to Section 6, No.5 in the questionnaire, give a general picture of the distribution of children's friends in relation to the households in the sample. The frequency of visiting has not been used in the analysis because of inconsistencies in the replies given by parents. The

location of the contacts made by children has therefore been used alone. Children at secondary schools both within a residential unit and in other areas have friends living further away than primary school children. Since the secondary schools serve wider areas, there is more likelihood of contacts with people living at a greater distance.

As children normally make friends quickly after arrival in a New Town, either at school or with children nearby, the results of the survey show differences between the answers given for children and those given for adults.

Table 17.1 Location of children's friends

	<u>Wood-</u> <u>side</u>	<u>South</u> <u>Parks</u>	<u>Calder-</u> <u>wood</u>	<u>Craigs-</u> <u>hill</u>	<u>Deans</u>
Next door or same block	1	1	11	5	3
Same terrace	-	1	6	7	1
Same street	27	13	69	31	14
Within 300 yards	11	25	94	24	6
Within residential unit	16	6	15	2	9
Other units as well	10	3	29	-	-
Beyond the town	2	2	11	3	-
Not applicable	45	41	153	75	46
Total households	111	91	376	146	74

In Woodside children from most households have friends living either in the same street or within approximately 300 yards of the home. Children in 14% of the households have friends in other parts of the precinct, and a further 11% have children with friends in other precincts and other towns. These children are scattered through Woodside, their distribution bearing no particular relationship to the neighbourhood boundary. None of the children in Alburne Park visit friends beyond Alburne Park.

The age of the children is reflected in the friendship patterns. Thus, the central part of Woodside and the south-west of the precinct where more older children are found, are the areas in which live most of the children

whose friends are scattered throughout Woodside and other parts of Glenrothes. In the rest of the precinct, the children are younger, and have most of their friends nearby. South Parks children also find most of their friends in their own street or in the immediate vicinity. The few children whose friends are found in other parts of the precinct, in other precincts or in other towns, are scattered throughout South Parks.

The large number of households over all parts of Calderwood, in which children have friends living in the same street or within 300 yards, contrasts with the small number in which children have friends living in other parts of the neighbourhood unit or other units. A higher proportion of children with friends in other units are found in the south-west of Calderwood, compared with the rest of the unit. Most of their friends were made at school, and are found in The Mains, The Murray and Westwood. Although the location of the homes has had little to do with the formation of these friendships, the location of the south-west of Calderwood is more central to the whole town than the rest of the unit is. It also has easier access to the other units, thus helping friendships to be maintained.

Craigshill children mostly fall within the pre-school and primary school age groups. Their youthfulness and relative immobility mean that most of them do not wander very far from their homes, especially since others of the same age group are normally found in the same street. Older children whose friends are outside Craigshill, have met them at schools in other towns. The small number in this group can be seen in Table 17.1. A few older children only, have maintained contacts with friends near their previous homes.

Deans is the only residential unit in which none of the children in the sample have their closest friends outside the unit. The age structure in this case is only part of the reason for this limited circle of friends. The relative isolation of the district influences the location of the friends of children more than of adults. of the movement of many children, but not because they are physical barriers.

Among the new immigrants many of the children are so young that they are just at the stage of making their first friends. In the north, the children who are on the whole older, have lived most of their lives in the district, and have made their friends locally, especially when the community at Livingston Station was more isolated than at present. Some mixing occurs between children in Deans South and the northern part of the district.

Among younger children, the proximity to others of the same age is important in the forming of friendships, however short-lived. Even among older children the effect of the distance from home remains important, but contacts with children in other units made through school and club membership do not seem to be limited or restrained by the existence of a physical boundary between residential units. Among most younger children friendships do not extend over the whole unit, but about 300 yards from the home. In Calderwood, for example, so little contact exists with other parts of the neighbourhood unit, that even children at Hunter Secondary School near the centre of the unit, who have lived in Calderwood for several years, were unable to give directions to schools, playing fields, streets and other landmarks in other parts. The school which a child attends is the most important influence on friendship formation. If a child attends a school within a residential unit he is likely to find friends at the same school and with all probability in the same residential unit. If a child attends a school in another area the probability of his friends being in his own residential unit will depend on the proportion of children from that unit, attending the same school. Proximity of households has an effect on making friends particularly if the children follow the same route or use the same transport for their journey to school.

The reason that Table 17.1 shows such a high proportion of children's friends living within the residential units is not the result of the existence of physical neighbourhood boundaries, but related much more closely to the schools attended and the distance to the homes of children of similar ages. Neighbourhood unit boundaries appear to be the limit of the movement of many children, but not because they are physical barriers.

VISITING RELATIVES

The visiting of relatives and friends by adults can take place over a greater area than trips by children alone, because of their normally greater mobility. In spite of this, many interviewees made complaints about the lack of opportunities to leave the New Towns because of the expense involved. Nevertheless, it will be seen that a great deal of movement away from the Towns occurs. Residents who miss families and familiar surroundings welcome opportunities to return to their earlier environment.

This study did not take into account the number of guests visiting the households nor the frequency of seeing relatives, as it is the attraction of places rather than people that is important in this context. In several cases, interviewees were anxious to explain that relatives and friends visit them as it is easier and less expensive than taking the whole family out for the day. An analysis of the relationship of the people visited has been considered because it could provide the reason for attachment to a place. The figures exclude meetings with relatives for shopping expeditions and commercial entertainment or recreation away from the home or at the homes of others, as most of this information has been covered in previous sections. Also, where several visits are made during one trip away from the home, only the chief reason for the visit has been considered. The place of employment has an effect on the frequency of some visiting, because a few people visit relatives on the way home from work, or during lunch hours. This latter group has been included in the figures.

(a) WOODSIDE (Table 17.2)

Only a few households have relatives living in Woodside. Elderly people are more often visited by their sons and daughters, rather than do the visiting themselves, hence the discrepancy between the number of daughters and sons being visited and the number of parents being visited. Relatives most frequently visited within Woodside are parents, the husband's brothers and the wife's sisters.

Most of these visits are at least once a week, but some women make daily trips to see parents and sisters. Visits to other precincts are seldom of daily occurrence, but sometimes as often as two or three times a week. The proportion of residents with relatives living within Glenrothes is small.

The majority of visits to relatives takes place outside Glenrothes. Towns in all parts of Fife are visited once a week or more - Kirkcaldy, Buckhaven, Leslie, Methil, Leven, Cardenden - as well as a few towns even further away. On the whole, relatives in more distant places receive fewer visits. The following figures indicate the percentage of visits to see relatives outside Glenrothes at least once every fortnight by households in Woodside: sons 3%, daughters 5%, husband's parents 17%, and wife's parents 18%. As visiting in more distant areas is less frequent and involves fewer numbers, it is of less significance from the point of view of absence from the precinct.

Within Woodside spatial variations in patterns showing the visiting of relatives coincide with age differences. In the north and west where high proportions of young people live, parents are visited frequently, while in the east in the area of County Council housing, although the number of households visiting parents during the year is about the same, visits are less frequent. In Alburne Park little visiting of relatives occurs, mainly because the people have emigrated from more distant places.

Although Woodside residents visit relatives in Woodside and other parts of Glenrothes more frequently than relatives elsewhere, the number who go away from the town to see relations during weekends retards the development of neighbourhood cohesion.

Other precincts	-	-	2	1	-	104
Other towns	-	-	3	3	4	96

HUSBAND'S SISTERS in

Woodside	1	-	-	-	1	104
Other precincts	-	-	-	-	2	108
Other towns	-	1	3	1	5	92

OTHER RELATIVES in

Woodside	-	2	3	1	1	103
Other precincts	-	-	1	1	2	105
Other towns	-	1	8	3	11	71

Table 17.2 Visiting of relatives by Woodside residents
(Total households = 111)

A = Daily
 B = 2-3 times a week
 C = Weekly
 D = Fortnightly
 E = Monthly
 F = Several times a year
 G = Seldom, never, or not applicable

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>
SONS in							
Woodside	-	2	1	-	-	-	105
Other precincts	1	-	2	2	1	-	105
Other towns	-	3	-	2	-	1	105
DAUGHTERS in							
Woodside	-	1	-	-	-	-	110
Other precincts	-	5	-	-	-	-	106
Other towns	-	3	2	1	1	1	103
HUSBAND'S PARENTS in							
Woodside	2	3	2	-	-	-	104
Other precincts	-	-	1	-	-	-	110
Other towns	1	5	13	4	13	12	63
WIFE'S PARENTS in							
Woodside	6	1	-	-	-	-	104
Other precincts	-	2	2	-	-	-	107
Other towns	2	4	14	3	10	8	70
WIFE'S BROTHERS in							
Woodside	1	-	1	-	-	-	109
Other precincts	-	-	3	1	-	-	107
Other towns	-	1	3	3	4	5	95
WIFE'S SISTERS in							
Woodside	4	-	1	-	1	-	105
Other precincts	-	2	-	1	-	-	108
Other towns	-	3	5	5	9	12	77
HUSBAND'S BROTHERS in							
Woodside	2	2	2	-	1	-	104
Other precincts	-	-	2	1	-	-	108
Other towns	-	-	3	3	4	5	96
HUSBAND'S SISTERS in							
Woodside	1	-	-	-	1	-	109
Other precincts	-	-	-	-	2	1	108
Other towns	-	1	3	1	5	9	92
OTHER RELATIVES in							
Woodside	-	2	3	1	1	1	103
Other precincts	-	-	1	1	2	2	105
Other towns	-	1	8	3	11	17	71

(b) SOUTH PARKS (Table 17.3)

Compared with Woodside, fewer households in South Parks visit relatives in their own precinct. This is explained by the early settlement existing in Woodside, and the longer period of settlement during which second generation families have obtained houses. As in Woodside, the majority who visit relatives nearby, go at least once a week, and most women whose parents are in the same precinct, visit them daily. The visiting of sons and daughters in other parts of Glenrothes is normally at least once a week. Visiting relatives elsewhere at least once a week, takes people to all parts of Fife, to places like Kirkcaldy, Cowdenbeath, Dunfermline, Markinch and Leslie, as well as further to cities such as Edinburgh and Dundee. Households from which people go beyond Glenrothes at least once a fortnight to visit relatives include 1% to see sons, 5% to visit daughters, 25% to see the husband's parents, and 21% to call on the wife's parents. Compared with Woodside, in South Parks a higher proportion of households frequently visit relatives outside the precinct. This is directly connected with the age of the settlement and the origin of the population.

Other precincts	1	2	1	-	-	-	87
Other towns	-	6	12	2	10	6	75

WIFE'S BROTHERS in

South Parks	-	-	-	-	1	-	90
Other precincts	-	-	5	-	-	1	85
Other towns	-	1	2	4	8	8	66

WIFE'S SISTERS in

South Parks	1	1	-	-	1	-	88
Other precincts	1	3	-	1	1	-	85
Other towns	-	-	4	1	4	10	72

HUSBAND'S BROTHERS in

South Parks	-	-	1	-	-	-	90
Other precincts	-	-	3	1	-	-	87
Other towns	-	-	-	2	-	16	73

HUSBAND'S SISTERS in

South Parks	-	-	1	-	-	-	90
Other precincts	-	-	2	-	2	2	85
Other towns	-	-	1	4	1	14	71

OTHER RELATIVES in

South Parks	-	1	-	-	-	1	89
Other precincts	-	2	-	1	1	1	86
Other towns	-	1	4	3	4	12	67

Table 17.3 Visiting of relatives by South Parks residents
(Total households = 91)

<p>A = Daily B = 2-3 times a week C = Weekly D = Fortnightly E = Monthly F = Several times a year G = Seldom, never, or not applicable</p>							
	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>
SONS on							
South Parks	2	-	-	1	1	-	87
Other precincts	1	-	2	1	-	-	87
Other towns	-	-	1	-	-	6	84
DAUGHTERS in							
South Parks	1	-	1	-	-	-	89
Other precincts	1	-	-	-	-	1	89
Other towns	-	2	2	1	2	5	79
HUSBAND'S PARENTS in							
South Parks	1	1	1	-	-	-	88
Other precincts	1	1	5	1	-	-	83
Other towns	-	4	13	6	8	11	49
WIFE'S PARENTS in							
South Parks	6	-	2	-	-	-	83
Other precincts	1	2	1	-	-	-	87
Other towns	-	6	12	2	10	6	55
WIFE'S BROTHERS in							
South Parks	-	-	-	-	1	-	90
Other precincts	-	-	5	-	-	1	85
Other towns	-	1	2	4	8	8	68
WIFE'S SISTERS in							
South Parks	1	1	-	-	1	-	88
Other precincts	1	3	-	1	1	-	85
Other towns	-	-	4	1	4	10	72
HUSBAND'S BROTHERS in							
South Parks	-	-	1	-	-	-	90
Other precincts	-	-	3	1	-	-	87
Other towns	-	-	-	2	-	16	73
HUSBAND'S SISTERS in							
South Parks	-	-	1	-	-	-	90
Other precincts	-	-	2	-	2	2	85
Other towns	-	-	1	4	1	14	71
OTHER RELATIVES in							
South Parks	-	1	-	-	-	1	89
Other precincts	-	2	-	1	1	1	86
Other towns	-	1	4	3	4	12	67

(c) CALDERWOOD (Table 17.4)

The differences in the ages of the population between one part of Calderwood and another appear to influence the relationship of people visited, but not the frequency of visiting. For example, more people in the western part of the neighbourhood unit visit sons and daughters than in the east, because the west has more older people and, therefore, more households with sons and daughters away from home. The few who have sons and daughters in Calderwood visit them frequently except where the distance between the houses is too great for those who are less mobile. The parents of the women are visited more frequently than those of the men. This is a common feature in British society in which young married women tend to rely on their mothers for advice and companionship (Young and Willmott, 1957). Differences concerning the visiting of other relatives are minor. More adults who visit brothers and sisters in East Kilbride, are found in the west than in the east, and the people in the newer north-eastern part of Calderwood tend to visit relatives in other towns more frequently than the people in the west.

The number who go away from Calderwood at least once a fortnight is even greater than the number who leave Glenrothes to visit their relatives. The households involved are: 1% to visit sons, 1% to visit daughters, 30% to see the husband's parents, and 36% to see the wife's parents. This is a result of the direct communications linking the Glasgow conurbation and North-west Lanarkshire, the former homes of many of East Kilbride's immigrants, with the New Town.

HUSBAND'S BROTHERS in

Calderwood	1	2	3	4
Other neighbourhoods	1	2	3	4
Other towns	1	2	3	4

HUSBAND'S SISTERS in

Calderwood	1	2	3	4
Other neighbourhoods	1	2	3	4
Other towns	1	2	3	4

OTHER RELATIVES in

Calderwood	1	2	3	4
Other neighbourhoods	1	2	3	4
Other towns	1	2	3	4

Table 17.4 Visiting of relatives by Calderwood residents
(Total households = 376)

A = Daily
 B = 2-3 times a week
 C = Weekly
 D = Fortnightly
 E = Monthly
 F = Several times a year
 G = Seldom, never, or not applicable

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>
SONS in							
Calderwood	1	2	2	4	1	-	366
Other neighbourhoods	-	-	4	3	1	-	368
Other towns	-	-	2	2	2	5	365
DAUGHTERS in							
Calderwood	4	3	2	-	2	2	363
Other neighbourhoods	1	1	2	-	1	1	370
Other towns	1	1	-	3	3	6	362
HUSBAND'S PARENTS in							
Calderwood	2	4	5	-	-	-	365
Other neighbourhoods	-	7	8	1	1	1	358
Other towns	1	14	71	28	44	25	193
WIFE'S PARENTS in							
Calderwood	6	12	6	-	1	2	349
Other neighbourhoods	4	6	6	2	1	-	357
Other towns	1	32	78	25	29	31	180
WIFE'S BROTHERS in							
Calderwood	-	-	4	3	4	-	365
Other neighbourhoods	-	2	2	3	4	1	364
Other towns	-	1	17	11	15	41	291
WIFE'S SISTERS in							
Calderwood	1	3	5	3	3	-	361
Other neighbourhoods	-	2	8	1	2	2	361
Other towns	-	5	25	11	29	43	263
HUSBAND'S BROTHERS in							
Calderwood	1	2	8	4	2	-	359
Other neighbourhoods	-	2	3	6	2	5	358
Other towns	1	-	8	7	15	36	299
HUSBAND'S SISTERS in							
Calderwood	-	3	5	1	4	-	363
Other neighbourhoods	-	-	8	2	6	6	354
Other towns	-	2	6	4	14	32	318
OTHER RELATIVES in							
Calderwood	1	1	3	-	3	5	363
Other neighbourhoods	-	2	4	6	6	7	351
Other towns	-	6	17	25	41	68	219

(d) CRAIGSHILL (Table 17.5)

Craigshill residents have few relatives living in the same district. As a result, the figures shown for visiting within the district are very low. In the few cases where the wife's parents or sisters or brothers are also in Craigshill, daily visits are usual. Even fewer relatives live in other parts of Livingston, so most visiting takes place outwith the New Town. Visiting relatives appears to be extremely important to the Livingston residents, and occupies a large amount of their leisure time.

Visiting relatives outwith Livingston at least once a fortnight involves the following percentages of households: visits to sons 1%, daughters 3%, husband's parents and wife's parents, each 48%. Most of the relatives who are visited frequently, live within the Lothians Regional Survey Area, and particularly at Broxburn, Bathgate, Armadale, and West Calder. A few residents visit these towns daily. Relatives in Edinburgh are visited at least once a week by more people than any other single place. Weekly visits are also made regularly to towns in the west, such as Glasgow, Coatbridge and Lanark.

Little significant difference exists in the patterns of visiting relatives between one cell and another, except in Almond South in which little visiting is done. The distance from the previous homes of the population is the main reason for this.

The most significant feature in the Craigshill visiting patterns, as in Calderwood, is the frequency of visits and amount of time spent visiting relatives who live outwith the New Town, but within a radius of approximately 15 miles.

Craigshill	1	1	-	-	1	1	142
Other districts	-	-	-	-	1	-	145
Other towns	-	1	5	1	5	9	125

HUSBAND'S SISTERS in

Craigshill	-	-	3	-	-	-	143
Other districts	-	-	1	-	-	-	145
Other towns	1	-	4	5	8	11	119

OTHER RELATIVES in

Craigshill	1	-	2	1	1	-	141
Other districts	-	1	-	-	2	1	142
Other towns	1	2	10	10	12	20	85

Table 17.5 Visiting of relatives by Craigshill residents
(Total households = 146)

A = Daily
B = 2-3 times a week
C = Weekly
D = Fortnightly
E = Monthly
F = Several times a year
G = Seldom, never, or not applicable

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>
SONS in							
Craigshill	-	-	1	-	-	-	145
Other districts	-	-	-	1	-	-	145
Other towns	-	1	-	-	-	-	145

DAUGHTERS in							
Craigshill	1	-	-	-	1	-	144
Other districts	-	-	-	-	-	-	146
Other towns	1	1	1	1	1	3	138

HUSBAND'S PARENTS in							
Craigshill	-	-	-	-	-	-	146
Other districts	1	-	1	-	-	-	144
Other towns	4	8	48	10	22	17	237

WIFE'S PARENTS							
Craigshill	4	-	1	-	-	-	141
Other districts	-	-	1	-	-	-	145
Other towns	4	17	39	10	15	18	43

WIFE'S BROTHERS in							
Craigshill	2	-	1	1	-	-	142
Other districts	-	-	-	-	-	-	146
Other towns	-	-	5	2	1	11	127

WIFE'S SISTERS in							
Craigshill	4	1	-	-	-	-	141
Other districts	-	-	-	-	-	-	146
Other towns	-	1	8	4	7	13	113

HUSBAND'S BROTHERS in							
Craigshill	1	1	-	-	1	1	142
Other districts	-	-	-	-	1	-	145
Other towns	-	1	5	1	5	9	125

HUSBAND'S SISTERS in							
Craigshill	-	-	3	-	-	-	143
Other districts	-	-	-	-	-	-	145
Other towns	1	-	4	5	6	11	119

OTHER RELATIVES in							
Craigshill	1	-	2	1	1	-	141
Other districts	-	1	-	-	2	1	142
Other towns	1	2	10	10	12	28	83

(e) DEANS (Table 17.6)

The composition of the population in Deans makes it slightly different from most of the other residential units in respect of visiting relatives within the district. The figures for the whole district show a higher proportion of people visiting relatives within the district, and a proportion more like that of Woodside visiting away from Livingston frequently. Sons, daughters and parents who live in Deans are visited at least once a week, but often daily. Very few people have relatives living in other parts of the designated area, but the proportions of households that visit at least once a fortnight in towns other than Livingston are: to see sons 3%, daughters 8%, husband's parents 19%, and wife's parents 22%.

However, if Deans is analyzed further, a distinction can be made between Deans South and the north of the district, in the same way as it has for other characteristics. Only people in the north have sons and daughters living in Deans. This is a direct result of the age structure and the location of the previous homes of the residents. Daughters are usually visited daily, a feature of life in Livingston Station that has persisted. In Deans South most people are obliged to go away from Livingston to visit their parents, while those whose parents live in the district are all found in the north. Similarly, visiting other relatives within Deans is common in the north, but not in the south. For comparison, in 13% of the households in the north women visit sisters in Deans, but only half the number in the south; people in 22% of the households in the north visit more distant relatives in Deans, but only 10% in the south.

The proximity of relatives to residents in the north and the close-knit community that existed before Deans South was built, have continued to play an important part in the life of the community. In addition, visits to relatives outwith Livingston, by residents in the north, involve shorter journeys than by people in the south, and normally a shorter time spent away from the home.

Deans	3	2	3	-	3	-	61
Other districts	-	-	-	-	2	2	70
Other towns	-	2	5	4	7	13	43

Table 17.6 Visiting of relatives by Deans residents
(Total households = 74)

A = Daily
B = 2-3 times a week
C = Weekly
D = Fortnightly
E = Monthly
F = Several times a year
G = Seldom, never, or not applicable

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>
SONS in							
Deans	3	2	-	-	-	-	69
Other districts	-	-	-	-	1	-	73
Other towns	-	-	2	-	1	4	67
DAUGHTERS in							
Deans	8	1	1	-	-	1	63
Other districts	-	-	-	-	-	-	74
Other towns	-	1	5	1	1	2	64
HUSBAND'S PARENTS in							
Deans	6	2	2	-	-	-	64
Other districts	-	1	-	-	-	-	73
Other towns	-	2	12	3	6	1	50
WIFE'S PARENTS in							
Deans	9	1	1	-	-	-	63
Other districts	-	-	-	-	-	-	74
Other towns	2	6	8	1	5	4	48
WIFE'S BROTHERS in							
Deans	1	-	-	-	1	-	72
Other districts	-	-	1	-	-	-	73
Other towns	-	-	-	5	1	-	68
WIFE'S SISTERS in							
Deans	5	1	1	-	-	-	67
Other districts	-	-	-	-	-	-	74
Other towns	-	-	8	6	5	7	48
HUSBAND'S BROTHERS in							
Deans	1	-	2	1	1	-	69
Other districts	-	-	-	-	-	-	74
Other towns	-	1	3	2	4	7	57
HUSBAND'S SISTERS in							
Deans	6	1	2	-	-	-	65
Other districts	-	-	-	-	-	-	74
Other towns	-	1	2	2	6	5	58
OTHER RELATIVES in							
Deans	5	2	3	-	3	-	61
Other districts	-	-	-	-	2	2	70
Other towns	-	2	5	4	7	13	43

(f) SUMMARY

Two important factors are emphasized by the visiting patterns of people in the residential units that have been studied. One is the sociological factor which demonstrates the part played by the parents in the lives of their young married daughters. The other factor is primarily geographical. The location of the New Towns in relation to the parent cities, is a major influence on the lives of many inhabitants and affects the extent of cohesion in a new residential unit. The number of trips to see parents away from the unit is strongly influenced by the routes and the public transport patterns to the parent city. This factor was expressed by several interviewees who, in comments about the Towns, believed that life for them would be more enjoyable if direct and frequent bus services went to Paisley, Kilmarnock and other places from East Kilbride, or to Edinburgh from Glenrothes. The exodus from the New Towns at weekends, to visit relatives, is evidence of the strong links existing with previous homes. Many people visit relatives several times a week, so the attachment of the immigrants to the home areas detract from any ties with the New Towns, and even hinder the development of attachments. As a corollary to this, a tendency exists for immigrants from further away, and those who cannot readily travel frequently to see relatives, to be more dependent on contacts made at their place of employment, and within the New Towns.

VISITING FRIENDS

Visiting relatives is sometimes a matter of duty, while visiting friends usually involves a greater element of choice. During the interviews, the addresses of friends and the frequency of visits were obtained in order to illustrate the extent and intensity of ties with people living both nearby and in other towns.

Table 17.7 Woodside households - frequency of visiting friends (Total households = 111)

For key, see p.396

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>
Same terrace or building	9	5	10	2	-	1	84
Same street	5	15	13	4	4	1	69
Other parts of Woodside	2	9	18	7	12	8	55
Other precincts	-	4	4	7	8	13	75
Other towns	-	1	7	10	12	12	69

Table 17.7 shows frequent visiting in the same terrace of houses or apartment block occurs in Woodside, with people in as many as 8% of the households visiting others in the same street daily. The number is smaller in areas where a high proportion of women are out at work each day. The table also shows that a much larger number of friends are found in Woodside than in other parts of Glenrothes, or in other towns. People in approximately a third of the households visit, at least once a fortnight, friends in Woodside who are not living in the same street; but only 14% visit friends in other precincts as frequently. However, 32% of people visit friends beyond the same street in Woodside at least once a fortnight, compared with only 16% who visit friends outside the town. A larger number make infrequent trips to see friends in other areas.

People in the eastern part of the precinct tend to visit more friends in the same street, compared with people in the west, but the proportions of households are the same in the east and the west for visiting beyond Glenrothes, although visiting by people in the west is less frequent.

People who stated that they made friends because they lived next door or nearby, gave examples of their first contacts, such as, "On the stair"; "They made themselves known on arrival"; "Through offers of help to newcomers"; "They offered us tea when we were moving". The part played by children in helping parents in a street to form friendships can be seen in Table 17.8. Likewise, the friendships made through the work of both men and women stand out as

Table 17.8 Woodside households - origin of friendships
(Total households = 111)

Ways in which acquaintanceships originated:

- (1) Work of husband or wife
- (2) Former neighbours
- (3) School friends or childhood friends
- (4) Old family friends
- (5) Through the children in the family, at school, clinic, or playground
- (6) Casual meetings, such as while shopping at vans, in public houses, at dances or on holiday
- (7) Introduction by mutual friends or relations
- (8) Present neighbours
- (9) Clubs
- (10) Church
- (11) Other ways, such as in the Services, in a hospital, at night school

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Same terrace or building	-	-	1	-	1	1	-	23	1	-	1
Same street	6	5	2	-	16	4	-	14	3	4	3
Other parts of Woodside	10	8	5	-	5	6	12	2	10	9	2
Other precincts	11	6	2	-	2	3	3	-	4	5	4
Other towns	18	10	11	1	3	1	7	-	5	1	6

important. Employment often brings together people of similar interests and socio-economic status, but it also results in a wide scatter of friends if the place of employment bears only a limited relation to the place of residence. Some of the figures relate to friendships made in places of former employment, so help to account for the number of people visited in other towns. Friendships in other parts of Woodside and elsewhere have often been made through introductions by mutual friends and relatives, contacts at meetings of clubs and organisations and through the church. The influence of the church and of group membership both within and beyond Woodside can also be seen in the Table. It must be remembered that neither the church nor the organisation is necessarily in Woodside. Nor have casual meetings that have led to friendships always been in Glenrothes. Several of them have taken place many miles away, but the coincidence of meeting people from "home",

usually combined with similar interests, have led to the formation of friendships.

Similar ways of meeting friends were described during interviews in the other residential units, but the proportions of friendships formed through each type of contact show some variation. Car ownership and consequent mobility of a higher proportion of the South Parks residents enable

(b) SOUTH PARKS

Table 17.9 South Parks households - frequency of visiting friends (Total households = 91)

For key, see p.396

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>
Same terrace or buildings	5	8	5	3	3	2	65
Same street	8	4	7	2	2	-	68
Other parts of South Parks	3	6	9	3	5	5	60
Other precincts	3	3	16	6	10	8	45
Other towns	-	1	9	5	6	25	45

Most of the houses in South Parks are built in terraces, although a few semi-detached dwellings have been built in the northern part of the precinct. People in 38% of the households visit others in the same street (including the same building), at least once a fortnight. Those who visit less frequently tend to limit visits to special occasions. Visiting people in other parts of South Parks at least once a fortnight (23% of the households) and in other parts of Glenrothes (31%) show that visiting habits in South Parks are quite different from Woodside where the comparable figures are 32% and 14%. This difference cannot be accounted for purely by the difference in size of the precincts. The limited facilities for meeting within the unit, and the lack of a true focal point are more significant in formation of friendships. Much group membership and entertainment occurs outwith South Parks, hence a greater opportunity occurs of meeting people with similar interests who live in other parts of Glenrothes. The number of households with people visiting in other towns at least once a

fortnight (16%) is the same as Woodside. However, the proportion of households with people visiting in other towns throughout the year is much higher in South Parks. This is partly because most South Parks residents immigrated from greater distances, so are only able to return to see friends infrequently. Car ownership and consequent mobility of a higher proportion of the South Parks residents enable a number of families to go away for weekends several times a year.

The northern part of South Parks differs from the rest of the precinct. In the north, most visits to friends in other parts of South Parks are less often than once a month. In the rest of the precinct and especially in the south-west, more people visit in other parts of the precinct at least once a fortnight.

Table 17.10 South Parks households - origin of friendships
(Total households = 91)

For key, see p.399

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Same terrace or building	3	1	-	-	1	1	-	22	-	-	-
Same street	1	1	-	-	1	1	2	21	1	-	-
Other parts of South Parks	4	7	2	-	3	2	6	4	1	1	2
Other precincts	25	11	2	2	4	1	8	-	2	3	-
Other towns	23	14	14	5	-	1	9	-	3	2	4

Most visits to friends in other parts of South Parks by people who live in the north, are to friends met through work. This is not such a marked feature among households in other parts of the precinct, although contacts made through work have been the basis of the largest number of friendships with people living beyond the precinct. In the south-west are several households in which people visit former neighbours in other parts of South Parks. For South Parks as a whole, visiting of former neighbours in other precincts is more important than it is in Woodside. This is to be expected when the number of South Parks residents who have formerly lived in other precincts, is considered.

The smaller size of families and the younger age are possibly the main reasons for fewer contacts being made through children.

A consideration of the origin of friendships in South Parks and Woodside show firstly, that in South Parks, friendships with people beyond the same street are formed mainly through work, through the continuation of friendships with former neighbours and through introductions by mutual friends. Secondly, in Woodside visits away from the same street show that in addition, a considerable number visit friends made at school and through club or group membership. These last two are influenced by the relatively small local area from which people have immigrated to Woodside, and the relatively large number who belong to local groups and organisations.

(c) CALDERWOOD

Table 17.11 Calderwood households - frequency of visiting friends (Total households = 376)

For key, see p.366							
	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>
Same terrace or building	29	40	44	12	16	12	223
Same street	8	25	26	7	10	14	286
Other parts of Calderwood	10	35	61	41	28	27	174
Other neighbourhood units	1	8	32	37	28	53	217
Other towns	2	17	37	26	42	95	157

The majority of buildings in Calderwood are flatted or terraced, but with a higher proportion of flats than in Glenrothes. The difference between the local visiting patterns of Calderwood residents and those in Woodside and South Parks might be partly attributed to the greater opportunities for meeting neighbours in apartment buildings where a common stair or access-way is used by several households. For example, people in 33% of the households in Calderwood visit friends in the same terrace or building

at least once a fortnight, compared with 23% in the Glenrothes precincts. This variation is partly offset by the larger number in Glenrothes who visit in other parts of the same street. A higher proportion of Calderwood residents (39% of the households) visit regularly in other parts of Calderwood away from their own street, compared with Woodside (32%), and South Parks (23%). Frequent visits to other residential units are also made by more households in Calderwood (21%) than in Woodside (14%), but not in South Parks (31%) for which an explanation has already been given. In addition more Calderwood households make frequent visits to other towns (22%) than are made by households in Glenrothes (16%). These visits are chiefly to Glasgow.

Table 17.12 Calderwood households - origin of friendships
(Total households = 376)

For key, see p.399

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Same terrace or building	6	-	2	-	4	5	1	141	-	-	1
Same street	6	8	-	-	12	5	7	52	2	3	1
Other parts of Calderwood	92	42	24	2	21	23	31	11	17	16	6
Other neighbourhood units	86	39	28	-	6	9	22	-	11	9	5
Other towns	92	54	79	12	6	15	23	-	26	15	20

The reasons for these differences can be partly explained by the origin of the friendships that have been established. The interviewees who stated that friendships nearby were formed because they were neighbours gave similar explanations of the nature of the first contact, as those in Glenrothes. Work is again the major place of the establishment of friendships in other parts of the unit, although the large number who visit former neighbours both within East Kilbride and elsewhere, is important. School friends and childhood friends are visited, chiefly in other towns. However, a number of second generation immigrants visit school friends who are also still in East Kilbride. Introductions

by mutual friends and relations play an important role in establishing friendships, as they do in other residential units.

No distinct areal variations in visiting habits among Calderwood households occur. More people, and particularly mothers with young children, in the east of the unit tend to make more frequent visits in the same terrace or building than people in the west. However, beyond this observation, visiting habits are similar in various parts of Calderwood. The influence of Glasgow is important in the same way as it is for visiting relatives. Its proximity and ease of access permit and even encourage the retention of friendships and regular visiting.

(d) CRAIGSHILL

Table 17.13 Craigshill households - frequency of visiting friends (Total households = 146)

For key, see p.366

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>
Same terrace or building	19	21	22	5	7	2	70
Same street	9	8	12	4	4	2	107
Other parts of Craigshill	4	22	22	15	15	9	59
Other districts	-	-	1	2	6	7	130
Other towns	2	7	18	18	22	36	43

The majority of people in Craigshill West and Almond West live in terraces of system-built houses. Some are single storey structures with outside entrances for each dwelling, while other terraces consist of four storeys with flats on the first two levels and maisonettes occupying the upper two floors. A common entrance from the footpath is used by six households. In Craigshill East is found more variety in the housing styles with a mixture of flats and terraced houses. Houses in Almond South are mainly semi-detached and terraced two-storey dwellings. The proposition that residence in apartment buildings tends to promote more

contact with other people, might be considered viable if the high proportion of households (46%) in Craigshill that visit within the same building at least once a fortnight, is considered in isolation. However, little significant difference can be found between the cells, or between flat and terrace dwellers. The high proportion of visits to friends in other parts of Craigshill (43% of the households) refutes the argument that the style of building is of outstanding importance in this respect. More significant reasons for the large number of visits made by Craigshill residents are the small number of women in employment and the limited entertainment facilities in the New Town, as well as the opportunities that have been made by various organisations for enabling people to meet each other.

Limited development and contact with other districts in Livingston has resulted in only 2% of the households visiting either Howden or Deans as much as once a fortnight. Barely any visiting of friends takes place in Livingston Village. However, people in 31% of the households visit friends beyond Livingston at least once a fortnight, and a further 40% go to other towns at least several times a year.

Table 17.14 Craigshill households - origin of friendships
(Total households = 146)

For key, see p.399

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Same terrace or building	1	3	1	-	3	-	3	64	-	2	-
Same street	6	5	1	-	-	15	6	10	-	2	-
Other parts of Craigshill	40	26	16	-	9	9	12	1	7	2	-
Other districts	6	3	1	-	-	1	2	-	2	2	2
Other towns	52	27	38	5	-	7	12	-	8	-	7

As in the other residential units, a large number of people have made friends with people living nearby, and through their work. A particularly high proportion visit former neighbours because households were moved when

buildings suffered storm damage in January 1968, and the earlier friendships with neighbours have continued. The number of school friends and childhood friends visited in Craigshill illustrates an effect of the movement of a considerable number of people from the area covered by the Lothians Regional Survey. The opportunity of visiting former friends within the new environment undoubtedly helps to reduce the sense of strangeness or loneliness felt by some immigrants. Several people enumerated in this group have renewed former acquaintanceships since arrival in Livingston. *Frequency is greater if visiting throughout a year is taken into account (see Fig. 17.1). This must be*

(e) DEANS

Table 17.15 Deans households - frequency of visiting friends (Total households = 74)

See key, p.396

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>
Same terrace or building	9	10	4	3	3	4	41
Same street	3	10	7	1	6	3	44
Other parts of Deans	4	7	7	2	3	4	47
Other districts	-	-	-	3	2	4	65
Other towns	1	4	6	9	6	6	42

The friendliness of people is not manifested any more accurately in Deans by enumerating the number of visits made by a household, than it is in any other residential unit. However, it acts as a guide to the cohesion felt in the unit. Especially in the north of the district, several of the interviewees know all the Livingston Station residents and keep up to date with the local gossip, yet do very little visiting themselves. Conversations over the garden fence, in the street, or in shops ensure they know everything that is going on in the Station. This feature which does not occur in the south of the district confers a real sense of belonging.

The figures in Table 17.15 are more difficult to interpret than in the previous Tables because Deans South is

considered as one street while in the north several streets can be identified. Hence these figures should not be used for detailed comparison with other units. Of the households in Deans South, 14% visit friends at least once a fortnight in the north of Deans, an indication of the extent of contact between the two areas. As in Craigshill, the number of people visiting in other districts is small and infrequent. A slightly smaller proportion of people in Deans (27% of the households) visit friends outside Livingston at least once a fortnight, than is found in Craigshill (31%). This difference is greater if visiting throughout a year is taken into account (see Fig.17.1). This must be due to the larger number of people who have lived in the district all their lives and thus have friends nearby, as well as the smaller degree of mobility in Deans.

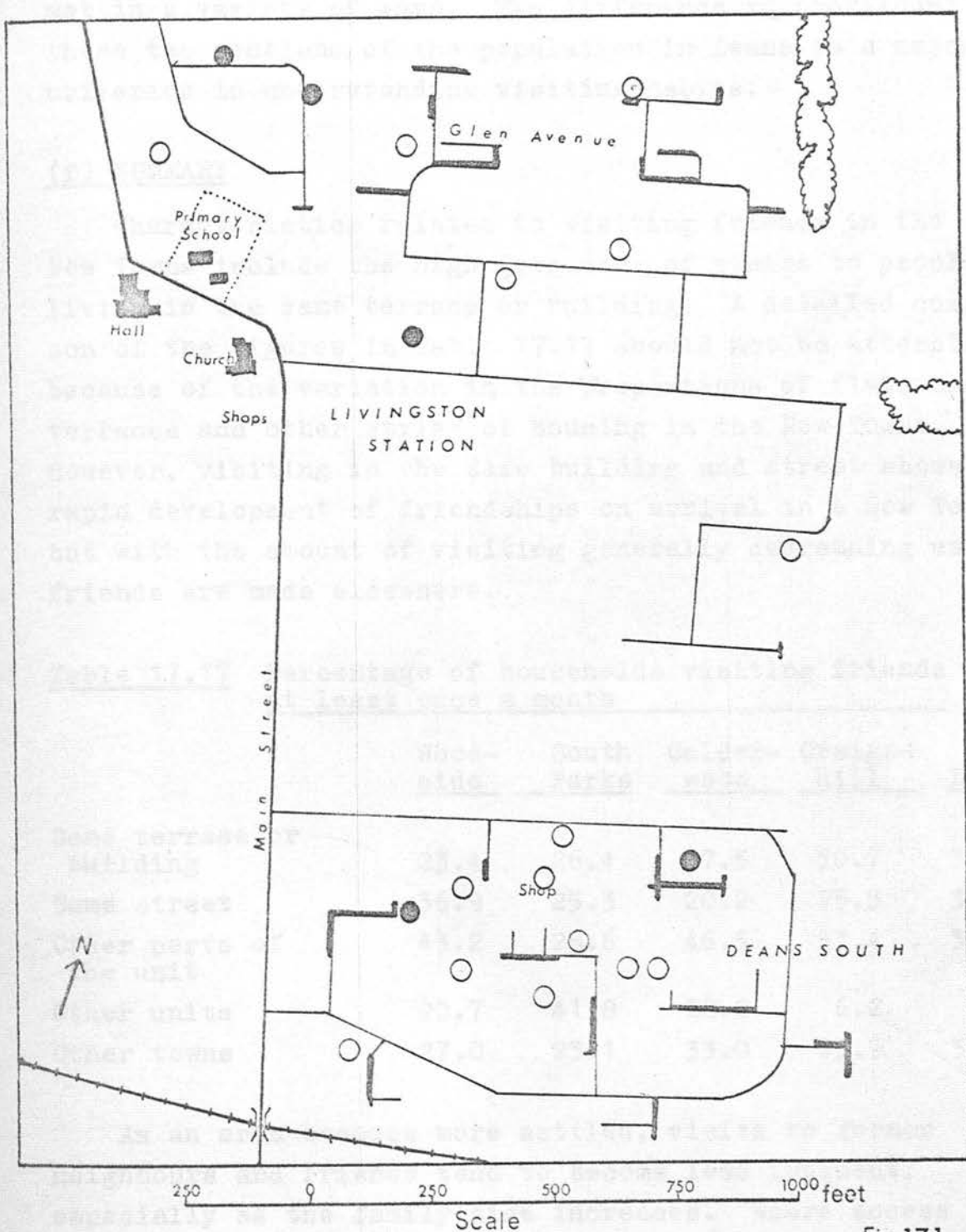
Table 17.16 Deans households - origin of friendships
(Total households = 74)

For key, see p.399

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Same terrace or building	1	7	1	1	1	1	-	22	-	-	-
Same street	10	7	3	2	1	2	4	3	5	1	-
Other parts of Deans	7	9	5	2	1	1	7	-	3	3	1
Other districts	5	2	1	-	-	-	1	-	-	-	-
Other towns	25	8	11	2	-	3	3	-	2	1	7

Differences between Deans South and the north of Deans are found in the proportion of people visiting outwith Deans, as well as the way people originally met their friends. In the north, seven people in the sample who visit others in the same terrace were previously neighbours. Because of the policy of the Development Corporation to keep Livingston Station residents together, and the demolition of buildings by a street at a time, removals of neighbours took place together, and the people found themselves once again near their former neighbours, sometimes to their delight, and occasionally to their disappointment. More Deans South

DEANS DISTRICT



Frequency of visiting friends beyond Livingston

Fig.17.1

- More than once per week
- At least once per fortnight

households (62%) than households in the north (42%) visit friends outside Livingston. The majority of the contacts made by Deans South residents have been made through work, while in the north friends outside Livingston have been met in a variety of ways. The difference in background of these two sections of the population in Deans is a major criterion in understanding visiting habits.

(f) SUMMARY

Characteristics related to visiting friends in the New Towns include the high frequency of visits to people living in the same terrace or building. A detailed comparison of the figures in Table 17.17 should not be attempted because of the variation in the proportions of flats and terraces and other styles of housing in the New Towns. However, visiting in the same building and street shows a rapid development of friendships on arrival in a New Town, but with the amount of visiting generally decreasing as friends are made elsewhere.

Table 17.17 Percentage of households visiting friends at least once a month

	<u>Wood- side</u>	<u>South Parks</u>	<u>Calder- wood</u>	<u>Craigs- hill</u>	<u>Deans</u>
Same terrace or building	23.4	26.4	37.5	50.7	39.2
Same street	36.9	25.3	20.2	25.3	36.5
Other parts of the unit	43.2	28.6	46.5	53.4	31.1
Other units	20.7	41.8	28.2	6.2	6.8
Other towns	27.0	23.1	33.0	45.9	35.1

As an area becomes more settled, visits to former neighbours and friends tend to become less frequent, especially as the family size increases. Where access to former home areas is easy, links are maintained longer, hence the difference existing between the figures for South Parks and Woodside. The distance from the former home, the level of car ownership, and access by public transport, in

relation to the age of the residential unit, are the major factors influencing the amount of visiting done in other towns. Hence, friendships in Glasgow are kept up by Calderwood residents; people in Woodside continue to visit friends in Kirkcaldy and other parts of Fife rather than Glasgow, but only a small number from South Parks have maintained earlier links because fewer of the residents have formerly lived near Glenrothes. South Parks residents, who have friends in other parts of Fife, have more often met them since their move to the New Town, either through their work or through membership of a group such as a Golf Club. In Craigshill and Deans many residents had friends already in parts of the L.R.S.A. and Edinburgh, but new friendships, mostly through work contacts have been readily made in the same way as in other residential units. A large amount of meeting done outside the town is characteristic of all New Towns, and as long as the proportion outwith the town remains large, greater cohesion within the town or residential unit is difficult to attain. and politicians have suggested that neighbourhood units also need to be 'balanced' and self-contained. These two characteristics and the features included in the definition will be considered in the light of the results obtained.

1. Separate Identity From Other Residential Areas

All of the residential units covered by the survey can be described as separate physical units, in that the boundaries between these units and other residential units are defined on maps and on the landscape.

Woodside is bounded by a major road, the countryside, an industrial estate and a railway line. South Parks is bounded by open space, parkland, and second grade roads. Around Calderwood are dual carriageways, Green Belt land, and school playing fields. Craigshill, in its early development, is still surrounded by land that has not been built on, except to the north where the Houston Industrial Estate is located. Deans, likewise, is surrounded by agricultural land. Both Deans and Craigshill are still relatively isolated.

These residential units, therefore, are localized settlements, with road patterns and styles of architecture that bestow a sense of CONCLUSION identity from other residential units.

Some of the material obtained during the survey has proved to be of little relevance to the topic, although at the commencement it seemed possible that such information could have been important. Consequently it is not intended to write a complete summary of the previous chapters, but rather, to put into perspective, the most significant geographical characteristics related to the planning of individual residential units in the context of neighbourhoods.

In part I a neighbourhood was described as a localized community that comes into existence through the continued interaction of residents, that exhibits a certain sense of cohesion, and a sense of separate identity from other residential areas. In the development of New Towns, some planners, sociologists, architects and politicians have suggested that neighbourhood units also need to be 'balanced' and self-contained. These two characteristics and the features included in the definition will be considered in the light of the results obtained.

1. Separate Identity from Other Residential Areas

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2. Balanced Residential Units

Balance, in relation to neighbourhoods, was taken to mean an age structure and socio-economic structure similar to other nearby areas. All the New Towns exhibit a youthful age structure, with Craigshill having the most immature structure of the five residential units studied. When compared with the populations of their respective counties, both East Kilbride and Glenrothes were found to have higher proportions of people in the middle socio-economic groups and fewer in the lowest classes. (Comparable figures were unavailable for Livingston.) Considerable variations exist between the individual units in both age structure, and socio-economic structure. The socio-economic imbalance can be accounted for, partly by the nature of the industries that have been established in the New Towns, and partly by the policies followed by the Development Corporations in the allocation of houses.

The intention of New Town planners was to build residential units for heterogeneous communities. Although the imbalance resulted in the New Towns being less heterogeneous than Scottish society as a whole, the Towns cannot be considered as completely homogeneous. Over 60% of the householders fall into the middle socio-economic classes of skilled manual workers and non-manual workers. Thus the failure to find leaders in the society cannot be blamed on lack of middle and upper class groups, which was the reason given by sociologists describing the housing estates of the inter-war years.

In the first New Town Developments, socially balanced residential units with a mixture of different types of housing were expected to encourage mixing of people of different socio-economic classes. More recently, pockets of higher amenity houses for owner occupation or renting, have been constructed. Hence, several houses in Alburne

Park are occupied by families of higher socio-economic status than in the rest of Woodside. Likewise, the northern part of South Parks, the Jamieson Drive area of Calderwood, and Almond South in Craigshill are areas set aside for some owner-occupation. It is expected that these are helping to overcome any lack of balance that might handicap development.

3. Self-contained Residential Units

Self-containment is related to the provision of facilities required for daily living. Lewis Keeble felt that providing an area is self-contained, it merits the name of neighbourhood. "It (neighbourhood) is, in fact, a matter which is far less complicated than the mingled odours of sanctity and disrepute which surround it, for good neighbourhood planning is no more, basically, than ensuring the good siting and accessibility of all those components of everyday life which need to be provided, other than work places in factory or office, namely, shopping, schools, open space, branch libraries, clinics and the like, as well as housing." (Keeble, 1964, p.109.)

Among the residential units studied, the Calderwood Neighbourhood has the largest number of the components listed by Keeble. It has two shopping areas, several schools including primary schools for Protestants and Roman Catholics, and a post-primary school for Protestants. It also has open spaces, a branch library, and other services. Woodside, with only a small Roman Catholic population, has no Roman Catholic school, nor a post-primary school in the precinct, but has other features such as a library and a number of services that permit a small degree of self-containment. South Parks residents have fewer facilities within the precinct, but adequate facilities nearby, to enable them to obtain daily needs with ease. Craigshill residents have access to most of the requirements listed by Keeble, but on a very limited scale. Deans is not as self-contained as Craigshill, but does have a few shops, a school, open space and housing.

However, while Lewis Keeble refers to the provision of all these facilities he assumes that they will be used by the majority of the population simply because they are present in the neighbourhood unit. If the facilities are not used by a large proportion of the households, the self-containment of the unit will be theoretical rather than real.

The findings of the survey given in Part III, illustrate the small extent to which the facilities are used in some units. Calderwood Neighbourhood has two groups of shops selling convenience goods, yet 42.5% of the households do none of their main shopping for groceries, green groceries, or meat at any of the shops in Calderwood. (This figure does not take into account the custom given to mobile salesmen.) Chemist's goods which are required relatively infrequently are the only convenience goods bought within the unit, by the majority of households. Calderwood residents shop in Glasgow, The Village, and the town centre for many convenience and durable products. The small shopping area where there is perhaps more chance of seeing familiar faces has not attracted Calderwood residents any more than local residents have been attracted by the supermarkets in the cells of Craigshill or Deans, or the local shops in South Street or in Woodside. An area with a bigger selection of shops and goods, and the possibility of lower prices is preferred to the small local shops, in spite of the anonymity of a large shopping centre. The expense of longer journeys and the time required to travel to a larger centre are the factors preventing more people from going further for their purchases. Often it is the convenience for day to day purchases rather than its attraction that makes the local shopping centre important in the self-containment of the residential unit.

Local service facilities are used by a greater proportion of the population than local shops. Chapter VIII showed that residents normally register with doctors and dentists nearby, and use the nearest library, if these facilities were available when they moved to the Town. Habits formed at an early stage of settlement are not readily changed.

Shopping and service facilities alone do not make a unit self-contained. It is questionable whether a residential unit can be considered as self-contained when, for weekly needs, many people patronize shops, and participate in recreational activities, away from the unit.

4. Continued Interaction of Residents

Although it might not be necessary for continued interaction of residents to take place within the residential unit, it was found during the interviews, that the amount of interaction is small among residents whose leisure time activities are mainly in other precincts or other towns. For example, in the cases of South Parks and Craigshill residents, a limited number of their contacts, other than with people in the immediate vicinity, are brought about by interaction in the same residential unit.

Interaction of residents within a residential unit could take place when shopping, using the same services, or attending the same entertainments. The answers to the question relating to where the interviewees first met friends living in other parts of the unit showed that very few of the initial contacts came through the continued interaction of people in the unit. Few people met each other while shopping, at bus stops, in the parks, or elsewhere in the units, so apart from any psychological value in seeing a few of the same people occasionally, little benefit is derived from frequent face-to-face contacts. By far the greatest number of friends are made either with people who live on the same stair or terrace; or at work, normally outwith the unit. Clubs, groups and various recreational activities provide contacts with people of similar interests, more often promoting a dispersed pattern of friendships throughout the town rather than confining them to a neighbourhood unit.

Nevertheless, on the assumption that continued interaction during shopping expeditions, and attendance at meetings, gatherings and recreational activities within the neighbourhood, is the way that a community acquires a sense of cohesion, a study of the patterns of those who

use these facilities was made. It examined the extent and frequency of people's movements, and consequently the likelihood of positive contacts occurring.

It was stated that different age groups in the population move over areas of different sizes, and the descriptions of children's play areas in Chapter XVI illustrate this point. Frequently, neither children nor adults have any knowledge of other parts of their own residential unit. The majority of primary school children know well, the route between their home and school, and between their home and shopping area. They also know details of the area within a distance of about 300 yards of their home. Their friends usually attend the same school, and so may be found within the hinterland of that school, but visiting in other parts of the residential unit is rare.

The following outline of the activities of the residents in the units illustrates how the use of local facilities is barely sufficient to create a sense of belonging to an entire unit. Attendance at, or use of local facilities created patterns showing areal differences within the unit; while use of facilities several miles from the unit showed no such spatial variation.

(a) Calderwood (Fig.18.1) Because Calderwood was planned to have the attributes of a neighbourhood, a sense of cohesion brought about by the interaction of residents might be expected more than in the residential units of the other New Towns.

For convenience goods shopping, a threefold division of the unit was found according to where people buy groceries, green groceries and meat. Only in the central part do the majority buy these goods near Calderwood Square. To the west, some people rely on Maxwellton Avenue shops, and to the east of the unit and the extreme south-west, a large number of residents shop either in the town centre or The Village. The small additional cost on public transport makes the journey past the neighbourhood shopping centre to the town centre, worthwhile. Most durable goods are bought outside the unit. Patterns related to the use of hairdressing and shoe repair services are similar to those

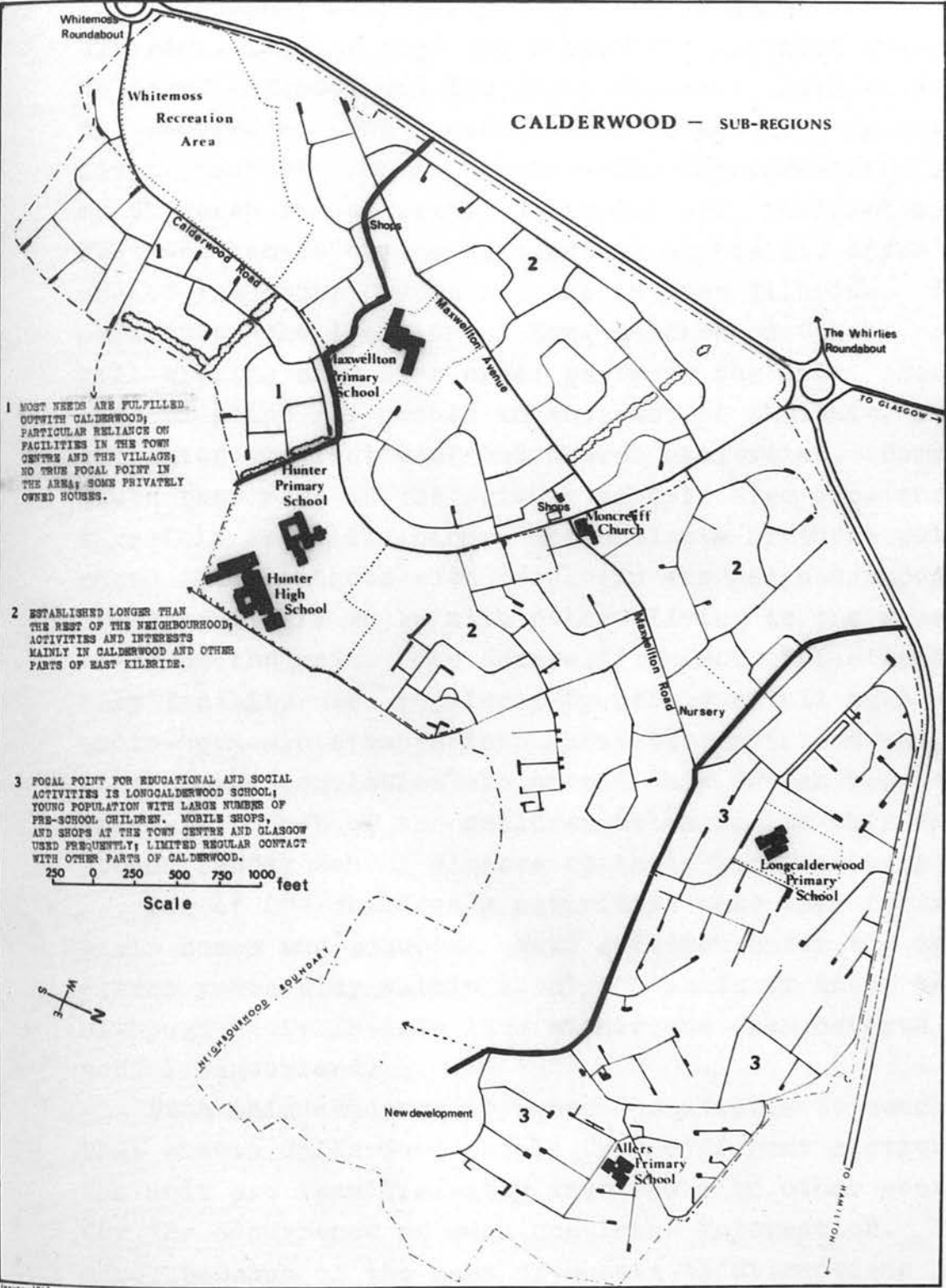


Fig.18.1

found for shopping for goods that can be obtained both locally and at other centres. Medical services that were not established in the unit until after the first developments had been settled, are little used by the older residents.

Attendance at primary schools also shows a threefold division. In the east the Protestant children attend Long Calderwood School and the Roman Catholic children attend St. Leonard's. The Hunter School is attended by children living near the centre of the unit, and Maxwellton School by children in the west. Roman Catholic children in the west and centre of the unit attend either St. Bride's or one of the other Church schools in East Kilbride. In particular the location of Long Calderwood School, on a hill sloping away from other parts of the unit, has become a focal point for people in the east of the unit, for education, recreational and church activities. Women's clubs that meet in the primary schools also show the threefold areal division. The analysis of these patterns shows that contacts with people in the neighbourhood unit are more likely to be with others living in the same one-third of the unit. The Moncreiff Church of Scotland is the only facility used regularly by people of all ages and socio-economic classes throughout the unit, and the proportion of the population who attend this church regularly is small. Most of the children belonging to this church attend Sunday School classes at their local primary schools.

Few of the children's activities take them far from their homes and schools. Most children under the age of eleven years play within about 300 yards of their home although their friends live within the area covered by the school hinterland.

From this evidence it seems justifiable to conclude that within Calderwood people from different sections of the unit are insufficiently involved with other sections for the occurrence of much continued interaction. Furthermore, because of the ease of access to attractions outside the unit, people are drawn away from Calderwood, further limiting the amount of interaction in the unit. For

example, the shops at the town centre and Glasgow are reached by regular bus services. Parking facilities at the town centre are more convenient than those in the unit. Entertainment is limited in East Kilbride, so Glasgow's cinemas, dance halls, and other entertainments are visited by many Calderwood residents.

Membership of recreational clubs and individual interest groups involve only small numbers, but again Glasgow proves an attraction because it is a major centre for many activities serving minority interests, and also because many Calderwood residents have retained membership since moving to East Kilbride. Membership of such groups detracts from, rather than adds to interaction within Calderwood itself. The number who participate in organized sport is smaller, and membership of clubs in The Murray, or clubs and teams in Glasgow and other towns is common.

Visiting friends and relatives also takes many people away from Calderwood. The strong influence of former homes cannot be refuted. In particular, the short distance to Glasgow, the parent city of many Calderwood residents, is highly significant.

Glasgow is a strong force in the spheres of employment, recreation, entertainment and visiting. Good road communication and frequent public transport services to Glasgow reinforce the ties binding people to their earlier homes, families and friends. This sense of belonging to Glasgow is so strong that former residents, now living in East Kilbride, still refer to Glasgow as their home. Hence, not only do the attractions of Glasgow act as a magnet, causing frequent dispersal of the population, but internally the location of facilities causes only a limited amount of interaction throughout the whole neighbourhood unit. The cohesion of the neighbourhood in its entirety is therefore minimal.

(b) Woodside (Fig.18.2) The first precinct to be built in Glenrothes has, like Calderwood, no single focal point. The shops are in two groups, the school in two buildings at different ends of the precinct, and the church is separate from other community facilities. The major physical

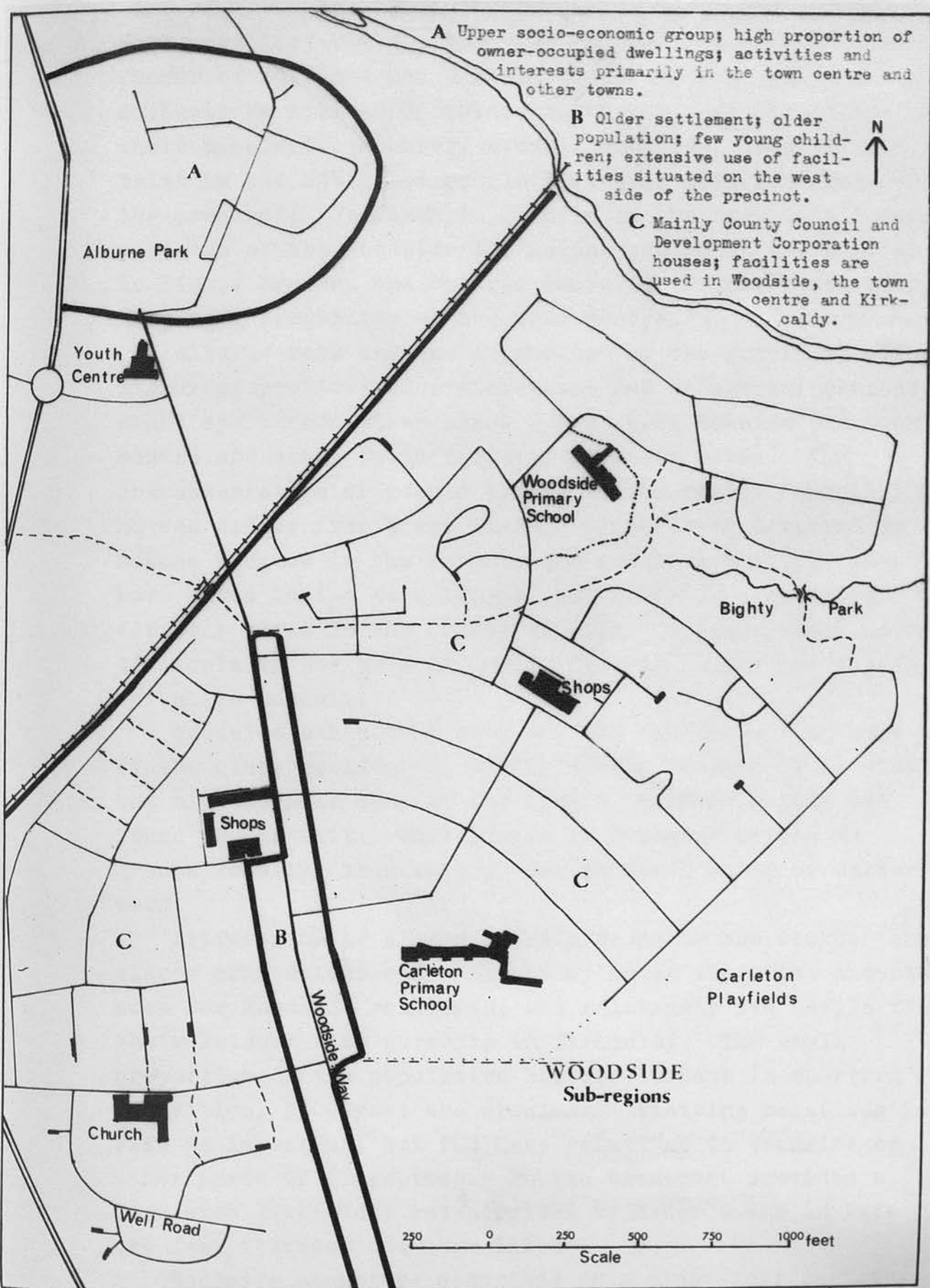


Fig. 18.2

difference between Woodside and Calderwood is the smaller size of Woodside. As a result, most facilities serve the whole precinct rather than just one section of it. The Church of Scotland has a membership embracing part of Auchmuty as well as Woodside, while both schools serve the whole precinct. However, even in Woodside, some differences exist in the habits of people living in different parts of the precinct. For example, people in the west tend to make most use of the Woodside Way shops, people in the east go to Bighty Avenue, and the residents in the north and south shop more frequently at the town centre.

Alburne Park and the south-west of the precinct, with higher proportions of professional and managerial classes, stand apart from other areas. Both look towards the town centre and other towns for many of their needs. The characteristics of people living in the County Council houses differ from those living in the newer Corporation houses because in the former, the people are older, they have lived in the town longer, and a higher proportion formerly lived in the County of Fife. A significant number of people in the area of County Council houses are employed by Tullis Russell.

Woodside exhibits a more settled character than many of the other residential units, partly because it is oldest, but also because many of the town's interest groups are found in the unit. More people in Woodside belong to groups locally, than is the case in South Parks or Calderwood.

Attractions of places outside Woodside are weaker than places near Calderwood. Kirkcaldy is an important shopping area for Woodside residents, but relatively few people find their leisure time pursuits in Kirkcaldy. The small proportion of the population who participate in sporting activities, go beyond the precinct. Visiting relatives in Fife is important, but few have relatives in Woodside or other parts of Glenrothes. Public transport provides a link with Kirkcaldy, but services to other towns in Fife are less frequent and less direct.

Woodside cannot be described as a close-knit society, yet its early establishment in the development of Glenrothes

has given it some stability. From the point of view of interaction of the residents, the area south of Alburne Park approaches the neighbourhood ideal. The unit with fewer than 5,000 inhabitants gives more opportunity for interaction than Calderwood with over 14,000 inhabitants. The varying ages of building developments, styles of building, and different shopping patterns within the precinct have not been a major hindrance to interaction within the unit, but the increasing use of the town centre and the continued use of Kirkcaldy detract the attention of residents from activities in Woodside.

(c) South Parks (Fig.18.3) South Parks is a smaller precinct than Woodside, built more recently, and lacking many of the amenities existing in the other precincts. The first part of the precinct to be settled was the east side. The north, with its high proportion of owner-occupiers, stands a little apart on a north-facing slope overlooking the Leven Valley, away from the rest of the precinct. Roads leading from the north towards the town centre, promote contacts with other parts of Glenrothes rather than the rest of the unit. Neither have the people in the south-west been absorbed into the life of the precinct. The school at the centre of the unit acts only as a focus for the primary school children, most of whom are found in the households on the east side of the unit.

Patterns connected with the use of services and shopping show some areal differentiation within the unit. People travel to other precincts or out of Glenrothes for most of their leisure time and business activities. This is aided by the high level of car ownership (68% of the households compared with 56% in Woodside). Many of the existing links with the precinct are tenuous, compared with stronger ties established with other parts of the town. Compared with Woodside the physical boundary of South Parks has not become a marked social boundary.

For South Parks residents the attraction of facilities in the precinct is not as great as in the case of Calderwood or Woodside. It is the lack of facilities and organisations

SOUTH PARKS

Sub-regions

A Over half of the houses are owner-occupied; are northerly aspect and road pattern encourage outward-looking; orientation is towards the town centre.

B Recently developed; few people are involved in precinct activities.

C The majority of households have interests in other parts of Glenrothes; South Street shops are used to a limited extent for the purchase of convenience goods.



High School

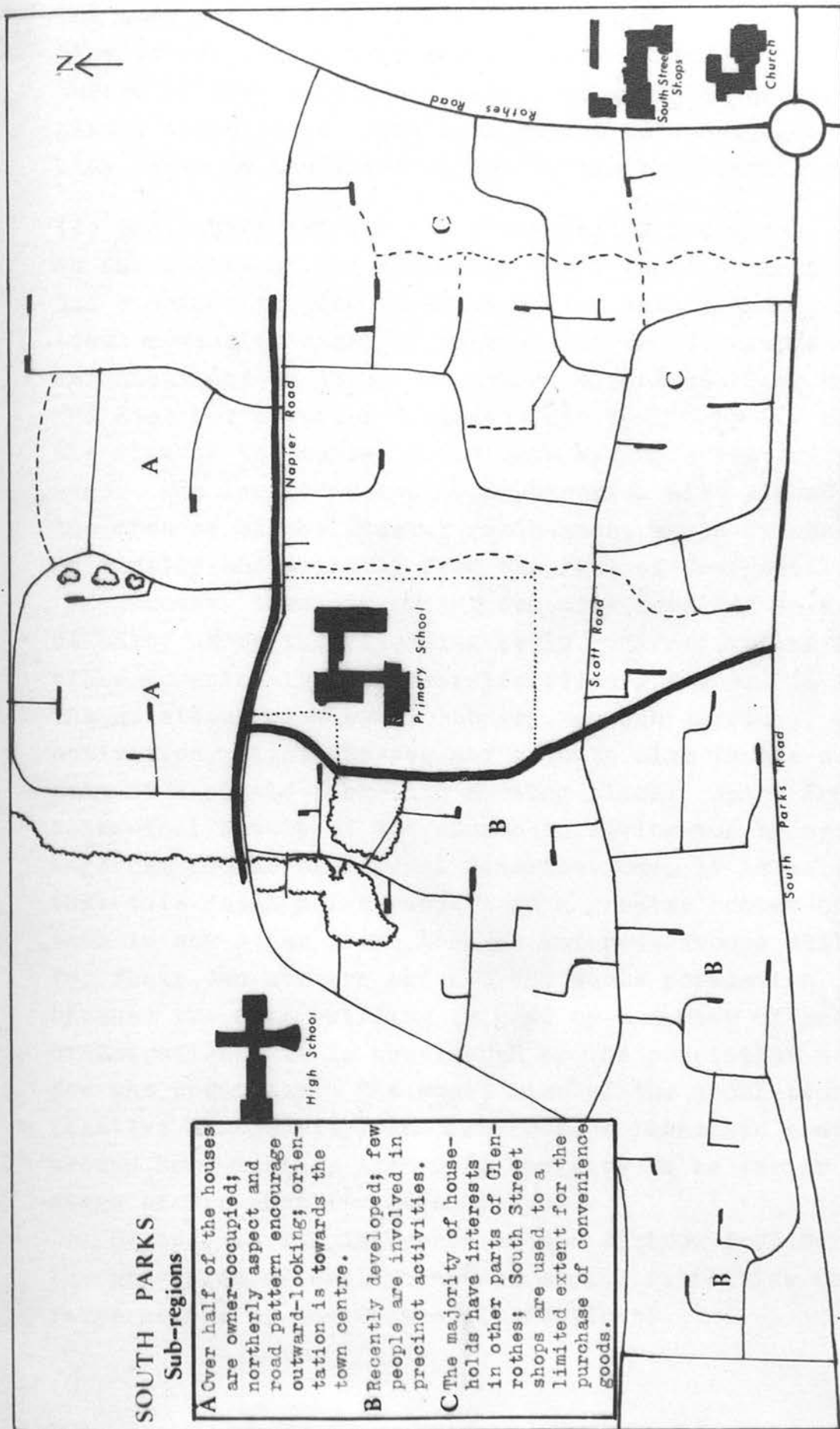


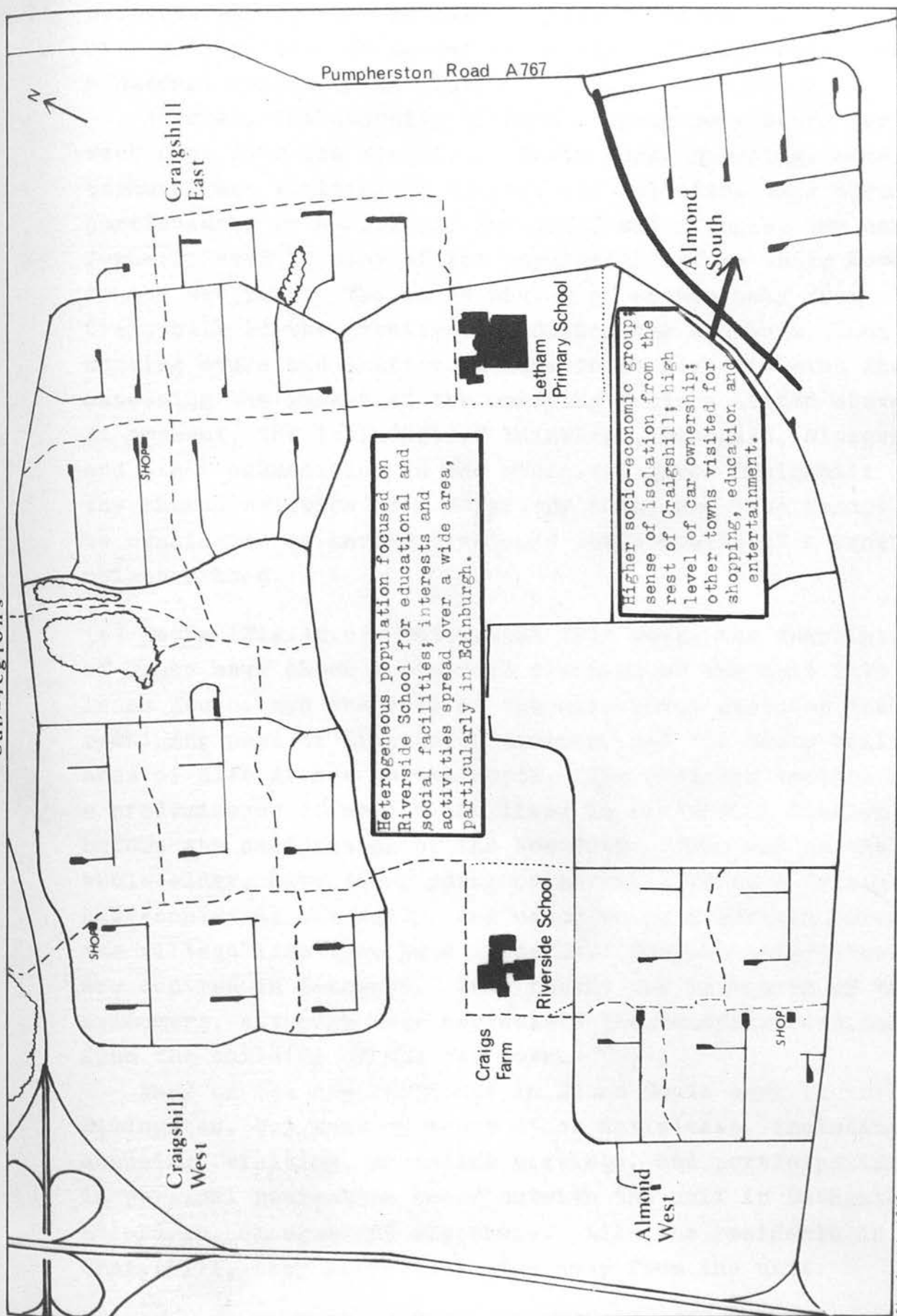
Fig. 18.3

in South Parks that encourages the residents to look further away, particularly to the older residential units where a greater range of activities take place. The facilities at the town centre were established at approximately the same time as settlement occurred in South Parks, so the residents turned to them before the habits of going elsewhere were firmly established. The town centre is becoming a significant focus in the lives of the South Parks residents.

(d) Craigshill (Fig.18.4) Craigshill's isolation, as well as the desire of the residents for a sense of belonging, and a chance to work together in the establishment of an ideal community could be reasons for the development of a neighbourhood in this, the newest of the residential units. The distinct physical division into four separate cells at the time of the survey could have had an effect of separateness. The lack of direct communication with Almond South, the area of higher amenity residences, keeps it apart physically and socially from the rest of Craigshill.

However, three important features have led to a feeling of unity among the remaining cells. First, is the important place occupied by the Riverside Primary School, in the society. The existence of a small library, church services, social activities, night classes and a youth club in the school make it a single focus and meeting place. Apart from the ecumenical nature of the church in Livingston bringing together people of several denominations, it is unlikely that this focal point results in a greater number of contacts than in any other town, because interest groups still cater for their own members and not the whole population. But because the same building is used by a number of groups and organisations, it is considered by the population as a centre for the community. The small size of the population, its relative homogeneity, and many common interests centred around home-making, also help contacts to be easier at this stage of Craigshill's development.

Second, is the influence of the Cameron Iron Works in the provision of employment and social facilities for a large number of the Craigshill residents.



Third, is the damage caused by gales in January 1968 when in the face of disaster, people helped each other. Many households moved to other cells, and formed cross-contacts which, through introduction of mutual acquaintances, have multiplied. Co-operation in time of need reinforced a nascent community spirit.

However, the majority of people spend many hours per week away from the district. Their work, shopping, entertainment and visiting of friends and relations take them particularly to Edinburgh, Bathgate, and Glasgow, the centres formerly used by many of the population before their move to the New Town. The large number of people away from Craigshill in the evenings and during the weekends, long working hours and shift work have to be borne in mind when assessing the impact of the unifying factors listed above. At present, the influence of Edinburgh, Bathgate, Glasgow and other communities in the vicinity, gives Craigshill the characteristics of a dormitory town, and thus cannot be considered as having developed the cohesion of a true neighbourhood.

(e) Deans (Fig.18.5) Throughout this work, the descriptions of Deans have shown a two-fold division of the unit into Deans South, and the rest of the unit which includes the remaining part of Livingston Station, and the newly built area of Glen Avenue to the north. The northern section has a predominance of people who lived in Livingston Station before the designation of the New Town. They are on the whole older, have fewer young children, live as a fairly self-contained community, and carry on to a certain extent, the village life they knew formerly. Outside activities are centred in Bathgate. Some resent the intrusion of the newcomers, although they appreciate the benefits resulting from the building of the New Town.

Many of the new residents in Deans South work in Livingston, but most of their other activities, including shopping, visiting, attending meetings, and participating in physical recreation occur outwith the unit in Bathgate, Edinburgh, Glasgow and elsewhere. Like the residents in Craigshill, they spend much time away from the unit.

DEANS DISTRICT

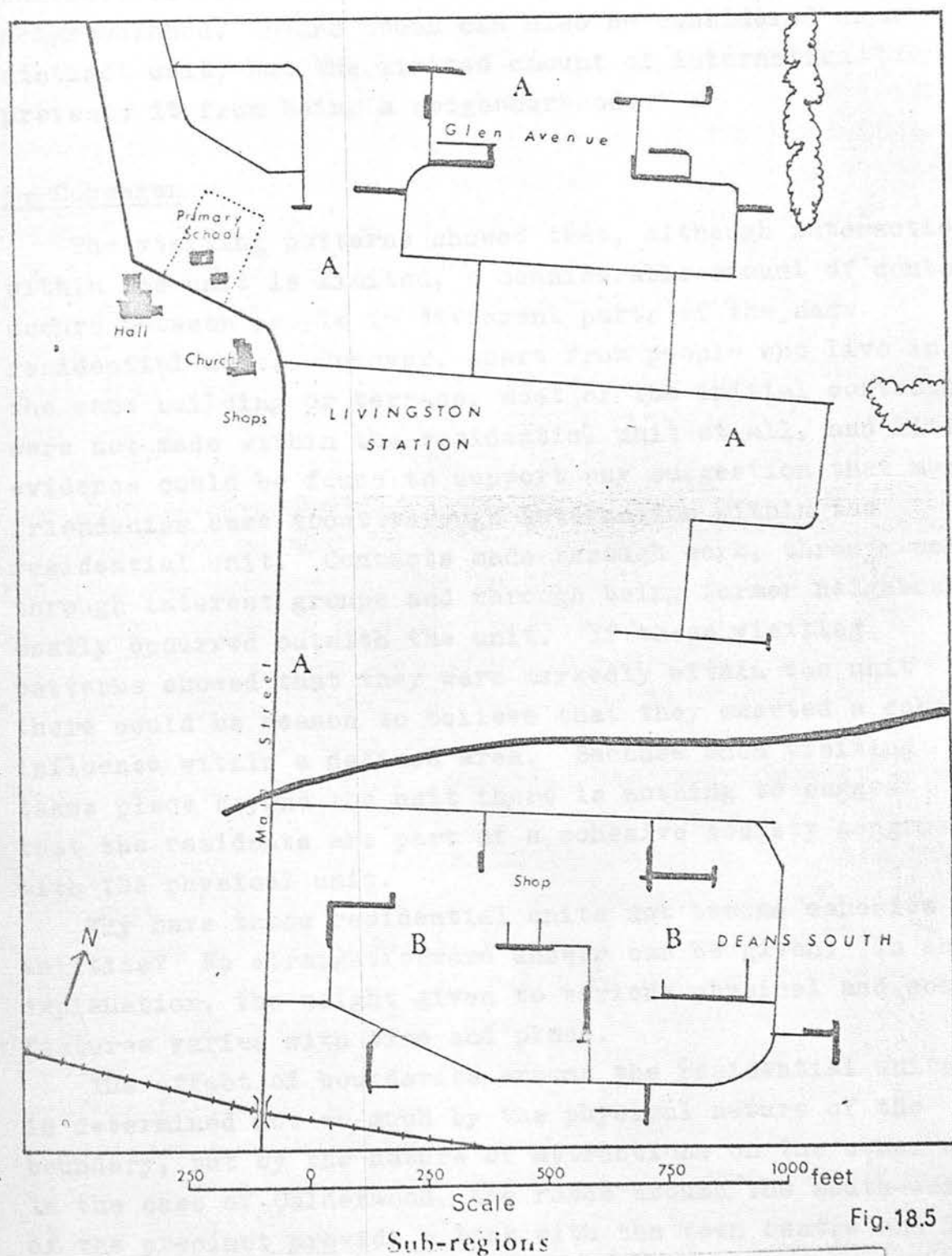


Fig.18.5

A Mature age structure: ties with Livingston Station and the immediate environs; Bathgate an important centre.

B New, young population; interests and activities scattered, particularly in the Edinburgh and Bathgate areas.

The northern part of the town is a distinct geographical unit centred around shops, bowling green, hall and school, where continued interaction among the small community of about 1,500 people causes it to retain many of its village characteristics. It exhibits many of the features of a neighbourhood. Deans South can also be considered as a distinct unit, but the limited amount of interaction prevents it from being a neighbourhood.

5. Cohesion

The visiting patterns showed that, although interaction within the unit is limited, a considerable amount of contact occurs between people in different parts of the same residential unit. However, apart from people who live in the same building or terrace, most of the initial contacts were not made within the residential unit at all, and little evidence could be found to support any suggestion that many friendships came about through interaction within the residential unit. Contacts made through work, through interest groups and through being former neighbours mostly occurred outwith the unit. If these visiting patterns showed that they were markedly within the unit there could be reason to believe that they exerted a cohesive influence within a defined area. Because much visiting takes place beyond the unit there is nothing to suggest that the residents are part of a cohesive society congruent with the physical unit.

Why have these residential units not become cohesive entities? No straightforward answer can be given. In an explanation, the weight given to various physical and social features varies with time and place.

The effect of boundaries around the residential units is determined not so much by the physical nature of the boundary, but by the nature of attractions on the other side. In the case of Calderwood, the roads around the south-west of the precinct provide a link with the town centre and The Village rather than forming a boundary between the unit and other environmental areas. Around the rest of the unit there are no such big attractions nearby. From Woodside, residents cross the boundary formed by the A92 for trips

to the town centre, to the post-primary schools and to the surgery in Cos Lane, that is, the facilities and institutions not existing in Woodside. All except two of the roads on the west side of Woodside lead towards Woodside Way, thus encouraging people to look towards Woodside and to use existing facilities in the precinct. People in South Parks seldom cross the River Leven to the north, and only those who go to the schools in the west often go in that direction. However, Rothies Road in the east hardly influences movements towards the east. In other words, the boundary makes South Parks a physical entity, but not a social unit because of the attraction of the town centre nearby. It is impossible to illustrate the effect of the planned boundaries of the residential districts in Livingston while they are still being established. A physical boundary around an area is insufficient to give cohesive qualities to a unit.

The size and shape of units, as well as distances within them influence some activities. The boomerang shape of Calderwood has proved a handicap because the distances from the two extremities to the centre are greater than most people are prepared to walk. A smaller unit of the same shape might have been more cohesive although it would still lack compactness. Hence, those in the north-east of the unit travel to the town centre by car or bus. Residents in the south-west, at approximately the same distance from the Calderwood shops and from the town centre and The Village, prefer to use the facilities outwith the neighbourhood unit. The more compact shape and shorter distances in Woodside encourage people to use facilities within the precinct, but even in Woodside the households in the peripheral areas that have easy access elsewhere, make less use of local facilities. Shape, size and distance within the precinct have less influence on South Parks residents because the nearest facilities are limited. The division of Craigshill into small cells has a psychological effect on the residents. Distances from one cell to another are not always as great as from one end to another of the same cell, yet people perceive them as being greater. People believe it is a longer distance from the shops in Main Street to

the east of Deans South, and from the same shops to the north-east of the district, when in fact the difference is minimal. This may be the result of the different styles in architecture and layout of the two areas.

Furthermore, a short distance to a bigger town or to the town centre attracts people beyond the residential unit, whether or not local facilities exist, as was observed in the case of Calderwood.

The road patterns within the residential units have had some influence on the habits of the people. The direct roads from Calderwood make Glasgow and the town centre easily accessible. Although these pass by Calderwood Square, they merely serve to cause traffic congestion, and create a desire for people to avoid the square, instead of focusing on the square as a centre. Woodside Way, the main road through Woodside, is joined by routes leading from all parts of the residential unit. Consequently it is busy, but apart from the shopping centre and community hall, none of the community facilities are along the road. Thus, the roads in neither Woodside nor Calderwood establish a major focal point in the community. Roads and footpaths in South Parks wind between the houses and around the school, but they also fail to emphasise any focus within the unit. St. Columba's Church, with its striking architecture, situated at the roundabout in the south-east corner of South Parks, is more of a focus than any building or area within the precinct. A difficulty experienced by many people in the cells of Craigshill was finding the way to another street or cell. The newly built roads, the poorly formed paths and the limited number of signposts at the beginning of the survey were causing problems of orientation for newcomers and visitors to the town. Riverside School which has become such a centre of community activities, although easily reached on foot, is not at the focus of the road pattern. However, routes leading out of the district are indirect and do little to encourage movement to other communities. The footpath pattern in Deans South is more confusing and fails to establish a focal point in any part of the district. In the north of Deans the focal point is

at the junction of Glen Road and Main Street. As community facilities are found at this junction, it has become the focus of the community's activities.

Hence, even where the road system leads towards a focal point, a centre of the community has not necessarily grown up. Most of the residential units have a number of small focal points but no major focus. This lack of a single major focus has contributed to the limited sense of cohesion found in the residential units as a whole.

The desirability of establishing a major focus in a residential unit needs to be reconciled with the need to eliminate traffic congestion, if shops and community centres are to serve motorists and pedestrians. The focus must be located with reference to the road and footpath system, the architecture of the buildings and the design of the unit, as well as facilities that encourage people to consider the area as a centre. This may be in addition to community facilities dispersed throughout the unit. In none of the residential units described, except Craigshill, has a major focus created a common feeling of belonging to the residential unit. Some of the routes taken by public transport have even detracted from what might otherwise have been the primary focus. This is a facet that the proposals for Irvine aim to overcome.

The dominance of certain firms in the employment structure and social life of some residential units has been obvious. Tullis Russell in Glenrothes, Rolls Royce in East Kilbride, and Cameron Iron Works in Livingston are all outwith the residential areas, and employ people living in a number of residential areas, so the cohesive influence is more often felt through the town as a whole, or in a section of a residential unit. Likewise, the policy of allocating houses to men employed in the New Towns has helped to create some cohesiveness in the Town as a whole, but not in particular residential units. Friendships have been formed among people at the same place of employment irrespective of whether they live in the same unit.

A further important factor influencing the attainment of a sense of cohesion is the length of time over which a

residential unit is built and settled. In units which have been built over a number of years, one building development at a time, one finds that families of similar age structure have moved into a single development. Hence, an area such as the first development in Calderwood built in 1955 has a different age structure from the recent developments in the north-east. People adjust to the conditions they find on their arrival, and frequently habits formed differ from those adopted by subsequent immigrants. Woodside has older people in the County Council houses built before the war, than in the newest Development Corporation houses, and this contrasts also with the newly settled areas in South Parks. Even a difference of two years affects the patterns in a very new unit like Craigshill. An explanation of the difference in the age groups of the two sub-areas of Deans has been accounted for by the housing policy in the area. Generally, families with a similar age structure, settling in a localized area at about the same time, tend to feel a greater sense of belonging together, rather than belonging to the much larger population of a unit that has arrived at intervals over a number of years.

Another factor appertaining to time is the stage in the development of a New Town during which a specific residential unit is built. Cohesion in a unit is likely to be found when many activities of the population occur within the unit, and are carried out with others living in the same unit. It has been shown that the majority of clubs, societies and groups appear in the first units to be built in a New Town. Therefore, in East Kilbride more facilities are found in The Mains and The Murray than in Calderwood. Thus Calderwood residents become members of organisations away from their own unit. For the same reason more facilities are found in Woodside than in South Parks. Greater cohesion then develops among the population in the older precincts. Craigshill, in its isolated location, has a greater number of organisations than future districts are likely to have. Deans has the advantage of facilities and organisations established in Livingston Station, but these are used to only a limited extent by the residents

of Deans South because of the different cultural backgrounds of the residents and different needs, as well as because of the location of the facilities. Any cohesive influence that community facilities and organisations have in a residential unit is therefore likely to be greater in communities established early in the New Town's development. The number of years that a residential unit has been completed appears to be a relatively minor factor in the cohesiveness of the population.

The influence of the past environment both on the characteristics of the immigrants and on the ties with the places of earlier residence has proved to be strong. The frequency of trips to see relatives and friends in the previous home areas, and for shopping, entertainment, and meetings illustrates the strength of attachments to nearby towns. Although these ties appear to weaken as the length of time spent in the unit increases, they continue to be important for several years, and detract from the cohesion of the residential units when the city of origin of the immigrants is within a distance permitting frequent visiting.

These reasons for varying degrees of interaction and cohesion within the residential units of the New Towns explain why none of the residential units can be called neighbourhoods at the present time. This does not suggest that no value comes from planning residential units. From a physical point of view there is value in keeping through traffic away from environmental areas in order to eliminate the noise, and danger to pedestrians. There is value in developing and servicing one area at a time during the construction of a New Town. The provision of facilities to supply the daily needs of the population is simpler for well defined groups. These things have been done in Cumbernauld without the intention of establishing separate residential units. The Cumbernauld plan has avoided the problem of providing facilities for fixed hinterlands. It is not suggested that schools, shops, halls, churches should be eliminated in the planning of the New Towns, but they cannot be expected to serve a population of a constant size when the New Towns are characterized by changing age structures and a high level of mobility.

In all the New Towns, whether neighbourhood units have been planned or not, it appears that certain small areas, not congruent with the residential units, have developed some cohesive characteristics. These pockets are neither self-contained nor 'balanced'. Areas such as the east of Calderwood (north of Maxwellton Road and east of Blackbraes Road), the north of Deans, and three of the cells in Craighill, have many features common to households in the areas concerned, as regards a degree of homogeneity in their socio-economic structure, settlement at about the same time, a similar age structure, attendance at the same schools and churches, and a physical environment that gives the area a feeling of a social entity.

The results of this work should have made it clear that planning must be flexible in order to accommodate changes that take place in the structure of the population, and in society as a whole. It should also be apparent that the physical characteristics of a residential unit alone will not make a neighbourhood, although they contribute to its development. The mobility of the New Town populations and the strong links with former homes reduce the amount of time and the number of contacts adults have in a New Town, although children learn at an early age to think of a New Town as their "home". The effect of nearby settlements, the distance to the parent city, the strength of ties with the previous home area, the immature age structure, the effect of industry on the socio-economic structure, and the mobility of the immigrants, all affect interaction and cohesion within the unit. Under present social conditions contacts with other people, and ties with other areas, are so widespread that neighbourhoods do not readily develop from neighbourhood units. Therefore the intention of inculcating neighbourhood characteristics in a New Town is of little value if based on the premise that neighbourhoods will develop similar to those in urban communities which have grown as a result of social and economic pressures in a heterogeneous population.

APPENDIX 1

AGE AND SEX STRUCTURE OF DESIGNATED AREA
IN NOVEMBER, 1963

Age Groups	<u>Livingston Station</u>		<u>Livingston Village</u>		<u>Bells-quarry</u>		<u>Farms</u>		<u>Total in designated area</u>	
	M	F	M	F	M	F	M	F	M	F
0-4	76	58	2	4	5	4	18	30	101	96
5-11	87	82	3	4	7	6	20	15	117	107
12-15	48	50	1	2	2	2	5	9	56	63
16-20	45	56	1	2	7	2	16	11	69	71
21-30	100	100	7	4	9	3	31	32	147	139
31-40	84	87	2	4	10	11	24	24	120	126
41-50	90	95	4	5	9	7	21	22	124	129
51-60	80	81	3	8	6	6	30	32	119	127
61-64	35	33	2	4	3	4	5	12	45	53
65+	54	60	5	7	14	14	24	20	97	101
Totals	699	702	30	44	44	72	194	207	995	1012

Original population = 2,007

[Source: Appendix 1 of Master Plan Report.]

Totals 483 1250 1733 486 1229 1715 3449 100.0

[Source: Livingston Development Corporation 1000 House Survey.]

* Deans District includes one household from Kirkton but does not include households in the old part of Livingston Station.

AGE AND SEX STRUCTURE IN LIVINGSTON,AUGUST, 1967

Percentages of Population

Age Group	MALE			FEMALE			TOTAL POPULATION	
	*Deans	Craigs- hill	Total	*Deans	Craigs- hill	Total	No.	%
0-4	68	280	348	77	245	322	670	19.4
5-9	63	154	217	59	149	208	425	12.4
10-14	45	56	101	31	57	88	189	5.5
15-19	24	25	49	29	55	84	133	3.8
20-24	26	153	179	48	211	259	438	12.7
25-29	82	228	310	90	210	300	610	17.7
30-34	52	146	198	42	119	162	360	10.4
35-39	38	82	120	36	67	103	223	6.5
40-44	25	47	72	14	30	44	116	3.4
45-49	26	34	60	25	24	49	109	3.1
50-54	16	12	28	16	13	29	57	1.6
55-59	10	13	23	5	14	19	42	1.3
60-64	3	6	9	5	10	15	24	0.6
65-69	4	7	11	3	13	16	27	0.8
70-74	-	2	2	-	5	5	7	0.2
75+	1	5	6	6	6	12	18	0.6
Totals	483	1250	1733	486	1229	1715	3449	100.0

[Source: Livingston Development Corporation 1000 House Survey.]

* Deans District includes one household from Kirkton but does not include households in the old part of Livingston Station.

AGE AND SEX STRUCTURE OF LANARKSHIRE,
EAST KILBRIDE AND CALDERWOOD, 1966

Total Population at JUNE, 1967

Percentages of Population

Age Group	<u>Lanarkshire</u>		<u>East Kilbride</u>		<u>Calderwood</u>	
	M	F	M	F	M	F
0-4	5.2	5.1	5.8	6.7	6.1	6.6
5-14	9.4	9.0	12.3	12.2	12.0	12.4
15-19	4.1	3.8	2.8	3.6	2.8	3.2
20-24	3.0	3.3	2.1	2.7	1.9	2.4
25-44	12.8	13.6	16.0	16.8	16.2	17.2
45-59	8.2	9.0	6.4	5.9	6.6	5.9
60-64	2.1	2.5	1.1	1.3	0.7	1.5
65+	3.6	5.3	1.5	2.7	1.7	2.7

[Source: Derived from Sample Census, 1966.]

60-64	163	200	363
65-69	117	167	283
70-74	63	112	174
75+	51	68	117
Not stated	28	70	96
Total			19,529

[Source: Cumberland Development Corporation.]

AGE AND SEX STRUCTURE OF CUMBERNAULDTotal Population at JUNE, 1967

<u>Age Group</u>	<u>M</u>	<u>F</u>	<u>Total</u>
0-4	1328	1266	2594
5-9	1533	1457	2990
10-14	860	775	1634
15-19	432	396	828
20-24	451	706	1157
25-29	970	1073	2043
30-34	1098	1107	2205
35-39	991	882	1873
40-44	700	579	1279
45-49	458	365	823
50-54	306	277	582
55-59	232	238	470
60-64	163	200	363
65-69	117	167	283
70-74	63	112	174
75+	51	86	137
Not stated	24	70	94
Total			<u>19,529</u>

[Source: Cumbernauld Development Corporation.]

APPENDIX 2

Questionnaire followed during interviews with residents

CONFIDENTIALA. Residence

1. How long have you lived in this town?
2. How long have you lived in this house?
2. Where did you live before coming to this town?
3. If you have lived elsewhere in the town, what was the address?
4. Why did you come to this town?
5. Do you like living in X? (X, being the name of the residential unit)
6. (a) Would you prefer to live in another part of the town?
- (b) Why?
7. Apart from reasons already given does this district have any specific advantages or disadvantages?

B. Shopping Habits

Where do you normally buy the majority of the goods listed below? *

	This neigh- bourhood (address)	Town Centre	Other neigh- bourhood (give name)	Else- where (name place)
Groceries				
Greengroceries				
Meat				
Children's clothes				
Adults' clothes				
Footwear				
Chemist's goods				
Furniture				
Hardware				

* Questions were asked in the form: "Where do you buy most of your"

Services

- (a) If you use a bank, where do you go?
- (b) When you go to a doctor, where do you go?
- (c) When you go to the dentist, where do you go?
- (d) Where do you have your shoes repaired?
- (e) Where do you (your family) go to the ladies' hair-dresser?
- (f) What public library do you use?

C. Activities of Members of the Household

	Age	Occupation or school	Place of work or school	If school is not in the neighbourhood state reason for location chosen	Usual mode of transport to work or school
Children					
Husband					
Wife					
Son					
Son					
Son					
Daughter					
Daughter					
Daughter					
Others					

- (a) If you go to the cinema, where do you go?
2. Do members of the household attend classes at night school, adult education classes, university part-time, etc.?
If so, where? What courses?
3. If any members of the household attend church, which church?
Where? How often?

- (a) Do members of your family go to a bowling alley?
If no, where? How often?

Adults

Children

(a) If you go to the cinema, where do you go?
How often?

- (b) If you go to the theatre to see professional entertainment e.g. plays, variety shows, pantomimes, etc., where do you go? How often?
- (c) If you go to concerts, where would you go? How often?
- (d) What other forms of public entertainment e.g. local amateur productions, do you attend? Where? How often?
- (e) Do members of your family go to a bowling alley? If so, where? How often?

- (f) Do members of the family go dancing?
 If so, where? How often?
- (g) Do members of the family play bingo?
 If so, where? How often?

6. Play Areas

1. Where do your pre-school children play out of doors?

2. Where do your children of 5-7 years normally play?

3. Where do your children of 8-10 years normally play?

4. Where do your children of 11 years and over normally
 play?
5. Where do the friends of your children live?

7. Visiting

- (a) How often do you visit members of your immediate family?

	How often?	Where do they live?
Son		
Son		
Son		
Daughter		
Daughter		
Daughters		
Parents of husband		
Parents of wife		
Brothers of wife	1	
	2	
	3	
Sisters of wife	1	
	2	
	3	

How often?

Where do they live

Brothers of husband	1	
	2	
	3	
Sisters of husband	1	supplied by our copy of T.O. Waugh)
	2	
	3	the chloropleth mapping system used
Other relatives (please specify relationship)	1	maps will be found in the "Chloropleth
	2	Guided Users", prepared by T.O. Waugh in
	3	graphy, University of Edinburgh, and
	4	obtainable at the of 1969. It is a system designed to

(b) How often do you visit friends other than relatives?

Please say where they live, and indicate the way in which the friendship was first formed, i.e., through work, by being former neighbours, school friends or members of the same club, by a casual meeting, or in some other way. Please specify.

How often?

Origin of friendship

i) in your block of flats (if you live in a flat)	1	documents for interpretation only, and
	2	Volume II.
	3	The system provides facilities to input maps and data,
	4	to file and retrieve maps and data, to manipulate selected
ii) elsewhere in the same street	1	consideration of format if necessary.
	2	without control of the format.
	3	free format, and therefore the input
	4	medium need not be for card images, although in this
iii) elsewhere in the same neighbourhood	1	work can be executed by the use of
	2	paper tape.
	3	then in "IBM (ii)", a high-level
iv) in another neighbourhood (please specify)	1	which is a derivative of "Atlas Auto-
	2	a subset of "Alcol". There are some
	3	trans 181. The system is available
v) outside the town (please state where they live)	1	IBM System 36/50, an ICL System
	2	all of the Edinburgh Regional Computing
	3	the versions occur in the versions for the

APPENDIX 3COMPUTER MAPPING

(Information supplied by courtesy of T.C.Waugh)

Information about the chloropleth mapping system used in the preparation of maps will be found in the "Chloropleth Mapping System Guide to Users", prepared by T.C.Waugh in the Department of Geography, University of Edinburgh, and obtainable at the end of 1969. It is a system designed to provide dynamic production of chloropleth maps from chloropleth or "census-type" information, on a computer output text device such as a line printer or teletype. It is an experimental system that has provided a test of various techniques which will eventually be incorporated in a much wider mapping system using more general computer output devices such as line plotters, cathode ray tubes and microfilm devices.

The maps produced by the chloropleth mapping system were used as working documents for interpretation only, and some examples appear in Volume II.

The system provides facilities to input maps and data, to file and retrieve maps and data, to manipulate selected parts of the data with consideration of format if necessary, to produce maps with or without control of the format. Data commands are in free format, and therefore the input medium need not be card or card images, although in this work, cards were used. Work can be executed by the use of an on-line console or paper tape.

The program is written in "IMP (AA)", a high-level programming language which is a derivative of "Atlas Auto-code", which is itself a subset of "Algol". There are some routines coded in "Fortran IV". The system is available for three machines, an IBM System 360/50, an ICL System 4/75, and an ICL KDF9, all of the Edinburgh Regional Computing Centre. Slight variations occur in the versions for the different machines.

APPENDIX 4

No. of
related
statements

(b) South Parks (No. of interviews = 91)

RESPONSE RATE TO QUESTIONS ABOUT ADVANTAGES
AND DISADVANTAGES OF RESIDENTIAL UNITS

	<u>Wood-</u> <u>side</u>	<u>South</u> <u>Parks</u>	<u>Calder-</u> <u>wood</u>	<u>Craigs-</u> <u>hill</u>	<u>Deans</u>
Total number of interviews	111	91	376	146	74
Number of people naming advantages	28	23	44	46	19
Number of people naming disadvantages	70	40	134	30	23

SUMMARY TABLES OF ADVANTAGES AND DISADVANTAGES
OF LIVING IN THE RESIDENTIAL UNITS OF NEW TOWNS

ADVANTAGES(a) Woodside (No. of interviews = 111)

No. of
related
statements

1. Quiet, peace, seclusion, privacy	35
2. Open, spacious, not crowded, good view or outlook, well laid out, not much traffic, attractive	17
3. Shops handy, good	17
4. Convenient to other towns, convenient to the town centre	13
5. Buses convenient	10
6. Good houses, modern houses, pleasant architecture, private garden	11
7. Friendly, good neighbours, nice people	8
8. Clean, fresh, healthy, bright	7
9. Good for children, safe for children, freedom, space and amenities for children	7
10. School nearby, good school, new school	6
11. Country atmosphere, near the country, easy access to the countryside	5
12. Better environment, better class, good area, not so rough, free from trouble, people take a pride in their homes	5
13. Settled, used to it	2
14. Other reasons	14

No. of
related
statements

(b) South Parks (No. of interviews = 91)

1. Quiet, peaceful, secluded, private, not interrupted	16
2. Friendly, nice neighbours, good friends here	16
3. Open, spacious, not crowded, good outlook, well laid out	15
4. Clean, fresh, healthy, bright	12
5. Good for children, safe, freedom for children, space and amenities for children	11
6. Good houses, modern houses, better houses	9
7. Shops handy, shopping good, shopping reasonable	8
8. Convenient to other places, convenient to centre, central	8
9. Better environment, people of better class, not so rough	7
10. School nearby, good school, new school	6
11. Buses convenient, bus services good	3
12. Country atmosphere, near the country	3
13. Other reasons	10

(c) Calderwood (No. of interviews = 376)

1. Good houses, better houses, modern houses	66
2. Open, spacious, not crowded, good view, good outlook, well laid out, attractive, not too crowded	68
3. Shops handy, shops good	68
4. Clean, fresh, healthy	62
5. Buses good, buses nearby, movement by public transport easy	52
6. Friendly, good neighbours, nice people	49
7. Central, convenient to other places, near Glasgow	47
8. Quiet, peaceful, private	47
9. Good for children, safe for children, freedom and space for children, good opportunities for children	44
10. New schools, nearby school, good school	27
11. Country atmosphere, near the country	17
12. Better environment, people of a better class, not so rough	13
13. Church nearby, sports facilities available, good clubs and entertainment	9

	No. of related statements
14. Settled and used to the area	7
15. Work nearby, employment opportunities	3
16. Mixed community	2
17. Other reasons	38

(d) Craigshill (No. of interviews = 146)

1. Good houses, modern houses, better houses, new houses	30
2. Friends here, good neighbours, kind people	18
3. Amenities for children, good for children, space and freedom for children	15
4. Good view, open, spacious, good outlook, not too crowded	15
5. Clean, fresh, healthy, bright	13
6. Country atmosphere, easy access to countryside	10
7. Quiet, private, peaceful	9
8. Shops are handy, shops are good	7
9. Convenient bus service	7
10. Schools good, nearby, new	4
11. Employment nearby	3
12. Good environment, better class	3
13. Near other places, convenient	2
14. Other reasons	5

(e) Deans (No. of interviews = 74)

1. Houses good, new, modern	18
2. Friendly, good neighbours, kind people	17
3. Quiet, peaceful, private	15
4. Open, spacious, good view, pleasant outlook, not too crowded	10
5. Settled, used to it	10
6. Freedom and space for children, amenities for children, opportunities for children, good for children	4
7. Near home, near relatives	2
8. Country atmosphere, near the countryside	2
9. Clean, fresh, healthy, bright	2
10. Other reasons	11

No. of
related
statements

DISADVANTAGES

(a) Woodside (No. of interviews = 111)

- | | |
|---|----|
| 1. Bus services bad, bus fares expensive, too few buses | 10 |
| 2. Too far from the town centre, shops too far away, shops too dear, lack of variety in shops | 9 |
| 3. Plan of houses poor, faulty structure, houses and gardens too small, restrictions on use of house and garden | 7 |
| 4. Missing friends and other areas, unfriendly, difficult to make friends | 5 |
| 5. Lacks entertainment, dead, no social life, not enough for young people | 5 |
| 6. Lacks privacy | 3 |
| 7. Rents too high, expensive | 3 |
| 8. No cohesion, like an estate | 3 |
| 9. Changing population, people always moving | 3 |
| 10. Other reasons | 14 |

(b) South Parks (No. of interviews = 91)

- | | |
|---|----|
| 1. Distance from the town centre, distance to the shops, expense of the shops and lack of variety | 23 |
| 2. Lack of entertainment, limited social life, nothing for young people | 17 |
| 3. Rents too high, too expensive | 6 |
| 4. Misses friends elsewhere, unfriendly, difficult to make friends | 5 |
| 5. Too quiet, isolated | 4 |
| 6. Nowhere to walk in the country, no parks, not open enough, too closed in | 4 |
| 7. No hospital nearby, no maternity unit | 3 |
| 8. No cohesion, like an estate, lack of interest in community activities | 3 |
| 9. Changing population, lack of stability in population | 2 |
| 10. Dangerous for children, too far from play areas, swings | 2 |
| 11. Other reasons | 11 |

(c) <u>Calderwood</u> (No. of interviews = 376)	No. of related statements
1. Distance from the town centre, distance from shops, expense and lack of variety of shops	73
2. Poor bus services, infrequent services, expensive fares	63
3. Lack of entertainment, no social life, not enough for young people, dead	58
4. Rents too high, too expensive	28
5. Difficult to make friends, unfriendly, misses other people and places	19
6. Disorganised plan of the town, too closed in, not open enough, nowhere to walk	17
7. Poor house plans, houses and gardens too small, cheap materials used in construction	17
8. Low standard of schools, insufficient school accommodation nearby, schools too far away, no kindergarten near	12
9. Too quiet, isolated	11
10. Dangerous for children, too far from swing parks	11
11. Too far from Glasgow, too far from other places, out of the way of other places	10
12. Not quiet enough, too noisy, lacks privacy	9
13. No cohesion, like an estate, lack of interest in the community	9
14. Too rough	4
15. Roads too narrow, rough roads, road to Glasgow inadequate	4
16. Other reasons	41

(d) Craigshill (No. of interviews = 146)

1. Shops too far away, shops too dear, lack of variety in shops	62
2. Poor bus services, inadequate number of buses, buses too expensive	39
3. Lack of entertainment, lack of social facilities, nothing for young people, a dead end	28
4. Damp houses, houses badly built, poor construction, houses too small, area too built up	19
5. Too quiet, isolated	11
6. Nowhere to walk in the country, no parks, disorganised plan of the town	8
7. Dangerous for children, too far from swing parks	8

No. of
related
statements

8. Rents too high, too expensive	8
9. Lacks privacy	4
10. Misses friends and other places, unfriendly, difficult to make friends	3
11. Too far from Glasgow, out of the way of other places	3
12. No cohesion, like an estate, lack of interest in what goes on	3
13. Dirty, messy	2
14. Lacks employment for unskilled workers and women	2
15. Other reasons	23

(e) Deans (No. of interviews = 74)

1. Shops too dear, too far away, lacking variety	28
2. Lack of entertainment, dead, no social life, nothing to do	14
3. Bad bus service, fares expensive, infrequent timetable	9
4. Need for another community hall	5
5. Nowhere to walk in parks, no country walks, not open enough, too closed in, disorganised town plan	3
6. Roads too narrow and inconvenient	2
7. Other reasons	15

APPENDIX 5 - Computer Program for Age Pyramids

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